

Wasco (100)

(see under silver)

Washington

(see under silver)

Washington Consolidated

(see Mineral Hill under silver)

West King

(see under silver)

Whitestone (97)

(see under gold)

Wolframite (1)

(see under tungsten)

Woo Loo Moo Loo (86)

(see under silver)

Wyoming (83)

(see under copper)

Yakima (94)

(see under copper)

PACIFIC COUNTY**Naselle (1)**

Loc: E½ sec. 2, (11-8W), under foundation of splash dam on E. Fk. Naselle R. **Ore:** Lead. **Deposit:** A 3- to 4-in. stringer of galena. **Ref:** 158.

PEND OREILLE COUNTY**Ace Ten Spot (96)**

(see under zinc)

D. Aldrich

(see Lead King)

Alger and McCullough (117)

(see under copper)

American Zinc, Lead and Smelting Co.

(see under zinc)

Auburn (26)

Loc: Secs. 25 and 26, (40-43E), Metaline dist. **Access:** Highway crosses the property. **Prop:** 18 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight showings of lead and zinc largely covered by overburden. **Dev:** Open cuts, stripping. **Ref:** 29, p. 46.

Bailey-Hanson

(see Red Top)

Baker City (114)

(see under silver)

Barefoot (110)

(see under silver)

Bead Lake (119)

(see also Kootenai Conquest and Comstock)

Loc: NE¼ sec. 22, (32-45E), Newport dist. **Prop:** Several claims, including: Comstock, Conquest. **Owner:** Hoover Mining Co. (1930-1942). Conquest Consolidated Mining Co. (1907). Bead Lake Gold Copper Mining Co. (1908-1924). Bead Lake Mining Co. (1924-1926). **Ore:** Lead, copper, silver. **Ore min:** Galena, chalcopryrite, pyrrhotite, sphalerite, pyrite, arsenopyrite. **Gangue:** Quartz, barite, calcite, siderite. **Deposit:** Irregular veins in quartzite intruded by diorite. **Ref:** 33, 1908, p. 360. 73, pp. 41-44. 97, 1918, 1923, 1928, 1930, 1938. 98, 1922, 1925, 1926. 106, no. 9, 1920, pp. 6-7. 112, 1918, p. 167. 113, 7/1/37, p. 16. 129, pp. 75-79.

Beaty (42)

Loc: Secs. 26 and 27, (40-43E), Metaline dist. **Access:** Some distance from road. **Prop:** 6 unpatented claims, among them the Ethel, Evelyn, Ellen, Mary. **Owner:** B. T. Beaty, Metaline, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Replacement zone in silicified limestone is about 4 ft. wide. **Dev:** 100 ft. of adit and shafts, open cuts. **Ref:** 29, pp. 53-54.

Bella May (99)

(see under zinc)

Berkin

(see Wolf Creek)

Blue Bucket (97)

(see under zinc)

Blue Jim (105)

(see under silver)

Bluebird

(see Dumont under zinc)

Bob Tail and Four Flush (90)

(see under zinc)

Boundary (20)

Loc: Secs. 2 and 11, (40-43E), Metaline dist. **Access:** Road. **Prop:** 15 unpatented claims. **Owner:** J. D. Nelson and associates, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Slightly mineralized silicified limestone. **Dev:** Numerous cuts and trenches, mostly caved. **Ref:** 29, pp. 50-51.

Bromide

(see La Sota under silver)

Bunker Hill

(see Lead Hill under zinc)

Buzzell

(see Lucky Strike under zinc)

Campbell (123)

(see under copper)

Caribou (1)

Loc: Sec. 8, (40-43E), Metaline dist. **Access:** 3 mi. from road. **Prop:** 12 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Sparsely mineralized quartz stringers in a fracture zone. **Dev:** Open cuts, caved in 1941. **Ref:** 29, p. 53.

Clark

(see Josephine under zinc)

Cliff (11)

(see under zinc)

Coffin (107)

(see under zinc)

Columbia Lead & Zinc Mining Co. (9)

(see under zinc)

Comstock (120)

(see also Bead Lake)

Loc: N½NE¼ sec. 22, (32-45E), above and E. of the Fractional Key property. **Elev:** 3,000 ft. **Access:** 8½ mi. by road NW. of Newport. **Prop:** 1 claim: Comstock. **Owner:** Newport Mining & Leasing Co., Spokane, Wash. (1951). Bead Lake Gold Copper Mining Co. (1917-1924). Hoover Mining Co. (1937). **Ore:** Lead, silver, copper, zinc. **Ore min:** Galena, chalcopryrite, a little sphalerite. **Gangue:** Quartz, calcite, siderite, barite. **Deposit:** Zones in diorite near its contact with quartzite contain irregular mineralized quartz veins. Several zones are exposed by the workings. **Dev:** 325-ft. adit, 100-ft. adit, 530-ft.

adit, 100-ft. adit, several surface cuts. **Assays:** A carload of ore shipped in 1930 returned \$1,650. **Prod:** Ore shipped in 1917, 1922, 1923, 1927, 1929, 1937. **Ref:** 73, pp. 43-44. 129, pp. 75-80. 139, pp. 46-49. 141, p. 22.

Conquest

(see Kootenai Conquest)

Corzine (108)

Loc: Sec. 16, (38-42E), Metaline dist. **Access:** Near road. **Prop:** 40-acre State lease. **Owner:** L. D. Corzine (1941). **Ore:** Lead, silver, zinc. **Deposit:** Quartz vein 2 to 3 ft. wide. **Dev:** 40-ft. adit, 16-ft. shaft. **Ref:** 29, p. 40.

Cougar (75)

(see under copper)

Dan Fieldner

(see under silver)

Davenport-Troyer

(see Gem under iron)

Diamond Eagle (93)

(see under zinc)

Diamond R. (94)

(see also Metaline Mining & Leasing Co. under zinc)

Loc: Near center sec. 30, (39-43E), 1 mi. W. of old Bella May workings, Metaline dist. **Elev:** 3,400 ft. **Prop:** 1 patented claim. **Owner:** Metaline Mining & Leasing Co., Spokane, Wash. (1936-1952). **Diamond R. Mining Co.** (1918-1924). **Riverview Mining Co.** (1931). **Century Zinc Co.** (1932). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite, smithsonite, cerussite, wulfenite. **Gangue:** Dolomite, coarse calcite. **Deposit:** Small irregular streaks of galena in brecciated dolomitic limestone. **Dev:** An adit reported to contain about 200 ft. of drifts. **Prod:** A carload of ore shipped in 1918. **Ref:** 29, p. 31. 73, pp. 66-67. 98, 1922, p. 1643; 1925, p. 1813. 106, 11/19/31. 112, p. 176. 114, no. 5, 1909, p. 54. 128, p. 68. 129, pp. 86-87.

Doherty

Loc: Metaline dist. **Ore:** Lead. **Prod:** 1925. **Ref:** 97, 1925, p. 559.

Dreadnaught-Emily

(see Hoage under zinc)

Dumont (29)

(see under zinc)

Eagle (33)

(see under zinc)

Eagle

(see Ries)

Elliot (74)

Loc: Secs. 18 and 19, (39-44E), Metaline dist. **Access:** 1 mi. from road. **Prop:** Several claims. **Owner:** Formerly Pat Elliot. Believed abandoned (1941). **Ore:** Lead, silver. **Deposit:** Fracture zone in slate is impregnated with narrow irregular quartz stringers which carry lead and silver. **Dev:** Number of open cuts. **Ref:** 29, p. 36.

Emily

(see Hoage under zinc)

Eureka (31)

(see under zinc)

Fairview Copper

(see Skippy and Queen Bess)

Fairview-Hoosier (95)

(see under zinc)

Falls View (44)

Loc: Sec. 35, (40-43E), Metaline dist. **Owner:** Silver-Lead Mining Co. (1907). **Ore:** Lead. **Ref:** 116, no. 12, 1907, p. 16.

Flusey

(see Flusey-Hoopala)

Flusey-Hoopala (Flusey) (25)

(see also Pend Oreille Mines & Metals Co. under zinc)

Loc: E½SW¼ sec. 26, (40-43E), on W. bank of Pend Oreille R., Metaline dist. **Elev:** 2,000 ft. **Access:** About 9 mi. from Metaline Falls on Z Canyon road. **Prop:** 2 patented claims: Flusey, Hoopala. **Owner:** Pend Oreille Mines & Metals Co. (1944). **Ore:** Lead, zinc, silver, copper. **Ore min:** Galena, sphalerite, marcasite, pyrite, chalcopryrite, bornite. **Gangue:** Cherty dolomitic limestone. **Deposit:** Mineralized shear zones in dolomitic limestone exposed on surface for 300 ft. **Dev:** Several surface cuts and 2 adits. **Assays:** Max. values 0.68 oz. Ag, 29.8% Pb, 11.9% Zn. **Ref:** 29, p. 35. 73, pp. 62-63. 98, 1926, p. 1580. 114, no. 5, 1909, p. 54. 128, p. 68.

Flying Squirrel

(see Giant-Flying Squirrel under zinc)

Four Flush

(see Bob Tail and Four Flush under zinc)

Galena Hill

(see Whoopie-Galena Hill under zinc)

Gardner (2)

(see under zinc)

Gem (85)

(see under iron)

General MacArthur (Glass) (126)

Loc: Center sec. 21, (31-45E), Newport dist. **Access:** Highway crosses the property. **Prop:** 4 unpatented claims. **Owner:** Charles I. Barker and associates, Newport, Wash. (1941). **Ore:** Lead, silver, gold, copper, zinc. **Ore min:** Galena, chalcopryrite, pyrite. **Deposit:** A fracture zone as much as 6 ft. wide is impregnated with mineralized quartz. **Dev:** 700 ft. of adits and shaft, partially caved. **Assays:** Handpicked sample assayed \$31.50 per ton. **Ref:** 29, p. 70. 139, p. 43.

Georgia Rose-Texas Slim (23)

(see under zinc)

Giant-Flying Squirrel (12)

(see under zinc)

Gilt Top (27)

(see under zinc)

Glass

(see General MacArthur)

Gold Arrow

(see Ries)

Gold Coin-Hardtack (115)

(see under silver)

Gold Hill (60)

Loc: Secs. 12 and 13, (40-44E), Metaline dist. **Access:** ¼ mi. from road. **Prop:** 11 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight mineralization in the form of a replacement deposit. **Dev:** Open cuts. **Ref:** 29, p. 57.

Golden Anchor

(see Ries)

Grandview mine (82)

(see under zinc)

Grandview Mines, Inc.

(see under zinc)

Gray Eagle

(see Hawkeye-Gray Eagle-Last Chance under copper)

Gray Goose**Loc:** Newport dist. **Ore:** Lead. **Prod:** 1922. **Ref:** 97, 1922, p. 254.**Haliday (36)****Loc:** Center S½ sec. 30 and center N½ sec. 31, (40-44E), Metaline dist. **Access:** 1 mi. from road. **Prop:** 1 patented claim: Hill No. 2. **Owner:** Moraldus Pierce (1941). **Ore:** Lead, silver. **Deposit:** Mineralized fracture zone impregnated with narrow quartz stringers. **Dev:** 125 ft. of adits, several open cuts. **Ref:** 29, p. 47.**Hanley (4)**

(see under zinc)

Hansen (130)

(see under gold)

Hanson

(see Red Top)

Hardtack

(see Gold Coin-Hardtack under silver)

Hawkeye-Gray Eagle-Last Chance (124)

(see under copper)

Hemlock (67)**Loc:** Sec. 15, (40-44E), Metaline dist. **Access:** 1 mi. from road. **Prop:** 5 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Small showings of lead and zinc. **Ref:** 29, p. 55.**Hidden Treasure (59)**

(see also Grandview Mines, Inc. and Metaline Mining & Leasing Co. under zinc)

Loc: Secs. 11 and 12, (40-44E), Metaline dist. **Access:** Forest Service road. **Prop:** 10 unpatented claims. **Owner:** Grandview Mines, Inc. and Metaline Mining & Leasing Co. are jointly leasing from Thomas Dougherty and associates, Metaline Falls, Wash. (1952). **Ore:** Lead, zinc. **Ore min:** Sphalerite, galena. **Deposit:** Replacement deposit in silicified limestone has been traced by cuts and trenches for 2,500 ft. or more along the strike. **Dev:** Considerable trenching and a number of open cuts. **Improv:** Cabin. **Assays:** 21 samples taken over the mineralized area assayed tr. to 16.49% Pb, tr. to 6.0% Zn. **Prod:** None. Some ore in dumps. **Ref:** 29, p. 60. 158.**Hoage (13)**

(see under zinc)

Hoosier

(see Fairview-Hoosier under zinc)

Hortense (89)

(see also Josephine under zinc)

Loc: NE¼SW¼ sec. 16, (39-43E), Metaline dist. **Prop:** Part of Josephine property. **Owner:** Pend Oreille Mines & Metals Co. (1930). **Ore:** Lead. **Prod:** 1930. **Ref:** 97, 1930, p. 674.**Huffman**

(see Mule Deer)

Independence (125)

(see under silver)

Ira Troyer

(see Troyer)

Iron Cap (63)**Loc:** Secs. 14 and 15, (40-44E), Metaline dist. **Access:** 1¼ mi. by trail from good road. **Prop:** 10 unpatented claims. **Owner:** Miss E. Thompson and associates, Ione, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Replacement deposit in silicified limestone has been exposed by trenching for a length of 2,000 ft. and as much as 40 ft. in width. **Dev:** Numerous open cuts and trenches, 300 ft. of diamond drilling. **Ref:** 29, p. 56.**Iron Crown (45)****Loc:** Sec. 35, (40-43E), Metaline dist. **Owner:** Silver-Lead Mining Co. (1907). **Ore:** Lead. **Ref:** 116, no. 12, 1907, p. 16.**Jenny Dee-Snowshoe (65)****Loc:** Secs. 14, 22, and 23, (40-44E), Metaline dist. **Access:** Road. **Prop:** 7 unpatented claims. **Owner:** Messrs. Johnson and Bailey, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Replacement deposit in silicified limestone has been exposed for a length of 60 ft. and a width of 10 ft. **Dev:** Numerous open cuts, stripping. **Ref:** 29, p. 57.**Jim Creek (106)****Loc:** SW¼NW¼ sec. 9, SE¼ sec. 10, and sec. 15, (38-42E), Smackout Pass area. **Elev:** 4,600 ft. **Access:** 8 mi. by road to railroad at Ione. **Prop:** 24 claims. **Owner:** Jim Creek Mines, Inc., Spokane, Wash. (1950—). **Ore:** Lead, silver, zinc. **Ore min:** Galena, sphalerite, pyrite. **Gangue:** Dolomitic marble. **Deposit:** Strong mineralization in marble near granite contact, in irregular zones 6 to 48 in. wide. **Dev:** Open cuts. 35-ft. shaft, 178-ft. shaft with workings on the 50-ft. and 150-ft. levels. **Improv:** 2 cabins, garage, blacksmith shop (1952). **Assays:** Owner reports av. 15% Pb, 15% Zn, 4 oz. Ag, presumably on picked samples. **Ref:** 133, p. 35. 158.**Jordan****Loc:** Metaline dist. **Ore:** Lead, zinc. **Ref:** 106, 8/20/31, p. 11.**Josephine (87)**

(see under zinc)

K. K.**Loc:** Metaline dist. **Ore:** Lead. **Prod:** 1925. **Ref:** 97, 1925, p. 559.**Katydid**

(see Ries)

Key Fraction (121)

(see also Alger and McCullough)

Loc: SE¼ sec. 15 and NE¼ sec. 22, (32-45E). **Access:** 8 mi. by road from railroad at Newport. **Prop:** 1 patented claim, part of Alger and McCullough group. **Owner:** Ed Alger, Newport, Wash. (1941-1951) leasing to Newport Mining & Leasing Co. (1951). **Ore:** Lead, silver, copper. **Ore min:** Galena, chalcocite. **Gangue:** Quartz, calcite, siderite. **Deposit:** Irregular branching quartz veins and stringers in diorite near quartzite contact. **Dev:** 300-ft. adit, 762-ft. adit. **Ref:** 73, pp. 44-45. 139, pp. 40-41.**King Tut (Velvet Lode) (54)****Loc:** Secs. 2 and 11, (40-44E), Metaline dist. **Access:** ½ mi. by trail from good road. **Prop:** 4 unpatented claims. **Owner:** Harry Sanborne, Metaline, Wash. (1941). **Ore:** Lead, zinc, silver. **Deposit:** Replacement deposit in silicified limestone has been traced by open cuts for a length of 500 ft. and a width of 8 ft. **Dev:** 90 ft. of adit, several open cuts and trenches. **Assays:** Ore shipped yielded 83.4% Pb, 2.3 oz. Ag. **Prod:** Some crude lead ore shipped. **Ref:** 29, pp. 57-58.**Kootenai Conquest (Bead Lake, Conquest) (118)**

(see also Bead Lake)

Loc: Near center SE¼ sec. 22, (32-45E). **Elev:** 2,750 to 2,950 ft. **Access:** 8 mi. by road from railroad at Newport. **Prop:**

About 170 acres of patented land and 2 claims. **Owner:** Newport Mining & Leasing Co., Metaline Falls, Wash. (1951). Conquest Gold & Copper Mining & Milling Co. (1898). Conquest Consolidated Mining Co. (1907). Bead Lake Gold Copper Mining Co. (1908-1926). Bead Lake Mining Co. (1924-1926). Hoover Mining Co. (1930-1942). W. E. Allen (1942). Pend Oreille County (1944-1948). **Ore:** Lead, copper, silver. **Ore min:** Galena, chalcopryrite, arsenopyrite, pyrite. **Gangue:** Quartz, sericite, calcite, siderite. **Deposit:** Irregular quartz veins and stringers in diorite near its contact with quartzite. One vein 3 to 9 ft. wide. **Dev:** 200-ft. shaft, 800-ft. adit, 250-ft. adit. **Assays:** 1.03 oz. Ag, 3.39% Pb, 0.79% Cu. 32.2 tons shipped av. 6.2 oz. Ag per ton, 23.65% Pb. **Prod:** Ore shipped in 1917, 1922, 1923, 1927, 1929, 1930 (32.2 tons ore), 1937 (5 tons ore). **Ref:** 29, p. 64. 58, pp. 15, 31. 73, pp. 41-43. 129, pp. 75-80. 139, pp. 46-49. 141, p. 22. 157. 158.

Kroll

(see Blue Bucket under zinc)

Kurlew (55)

Loc: Secs. 2 and 11, (40-44E). **Prop:** 4 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Small showings of lead and zinc. **Dev:** Open cuts. **Ref:** 29, p. 58.

Lakeview (16)

(see under zinc)

La Sota (Bromide, Silver Crest) (109)

(see under silver)

La Sota (Troyer)

(see Troyer)

Last Chance (37)

Loc: Secs. 25, 26, 35, and 36, (40-43E), Metaline dist. **Access:** Highway passes the property. **Prop:** 6 unpatented claims. **Owner:** J. W. Bustua, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** A mineralized and silicified limestone body has been exposed for a length of 60 ft. and a width of 10 ft. **Dev:** 25-ft. shaft, numerous open cuts and trenches. **Ref:** 29, p. 46.

Last Chance (57)

Loc: Sec. 11, (40-44E), Metaline dist. **Prop:** 5 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Small spotty showings of lead and zinc. **Dev:** Open cuts. **Ref:** 29, p. 60.

Last Chance

(see Hawkeye-Gray Eagle-Last Chance under copper)

Lead Hill (61)

(see under zinc)

Lead Hill Extension (71)

(see under zinc)

Lead King (D. Aldrich) (40)

Loc: Near center sec. 27, (40-43E). **Elev:** 2,700 ft. **Access:** About 9 mi. from Metaline Falls on Z Canyon road. **Prop:** 10 claims, including: Lead King, Robert E. Lee, Twin Lakes, Alameda, Mocking Bird, D. Aldrich. **Owner:** Pend Oreille Mines & Metals Co. (1928-1945). Lead King Mines Co. (1915-1926). Pend Oreille Lead & Zinc Co. (1928). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite. **Gangue:** Dolomite, quartz. **Deposit:** Mineralized quartz and mineralized dolomite breccia. Mineralization is low grade and is mostly in upper 100 ft. of the carbonate rocks. **Dev:** 191-ft. adit, shallow shafts, 2 short adits, open cuts, trenches, 2,200 ft. of diamond drill holes. **Prod:** Small shipments 1917-1918, 1925-1926. **Ref:** 5, pp. 197-198. 7, pp. 48-49. 29, p. 34. 73, pp. 60-62. 97, 1917, 1918, 1925, 1926. 98,

1925, p. 1822; 1926, p. 1586. 113, no. 11, 1937, p. 7. 128, p. 70. 158.

Lead Metal (62)

(see under iron)

Lead Queen (Scandinavian) (5)

Loc: Center S½ sec. 11, (40-43E), Metaline dist. **Elev:** 3,000 ft. **Access:** 12 mi. from Metaline Falls on Crescent Lk. road. **Prop:** 12 unpatented claims. **Owner:** Scandinavian Pend Oreille Mining Co. (1943). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite. **Gangue:** Calcite, quartz. **Deposit:** Silicified zone in dolomitic limestone. Churn drill holes 800 ft. apart have shown mineralization. **Dev:** Several open cuts and trenches, churn drill holes. **Prod:** Has produced. **Ref:** 29, pp. 48-49. 97, 1917, p. 503. 106, 8/4/31, p. 4. 128, p. 74. 158.

Little Noisy (79)

(see under zinc)

Lloyd (128)

Loc: Sec. 10, (30-45E), Newport dist. **Access:** Road. **Prop:** 1 unpatented claim. **Owner:** Dan Lloyd, Newport, Wash. (1941). **Ore:** Lead, silver, copper, zinc. **Deposit:** Said to be a mineralized quartz vein about 18 in. wide. **Dev:** 22-ft. shaft, 50 ft. of trenching. **Ref:** 29, p. 68.

Lookout (30)

Loc: Sec. 30, (40-44E), Metaline dist. **Access:** Near road. **Prop:** 2 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight mineralization. **Dev:** Open cuts. **Ref:** 29, p. 47.

Lucky Boy (56)

Loc: Sec. 10, (40-44E), Metaline dist. **Access:** 4 mi. from road. **Prop:** 4 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Sparsely mineralized replacement deposit. **Dev:** Open cuts. **Ref:** 29, p. 53.

Lucky Boy Rex (28)

(see under zinc)

Lucky Strike (46)

(see under zinc)

MM (17)

Loc: Sec. 1, (40-43E), Metaline dist. **Access:** Highway crosses the property. **Prop:** 11 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight showings of lead and zinc along a replacement zone. Largely hidden by heavy overburden. **Dev:** Open cuts mostly in overburden. **Ref:** 29, p. 50.

McCullough

(see Alger and McCullough under copper)

Mack (68)

Loc: Sec. 15, (40-44E), Metaline dist. **Access:** 4 mi. from road. **Prop:** 11 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight showings of lead and zinc. **Dev:** Open cuts, partially caved. **Ref:** 29, p. 54.

Mammoth

(see Morning and Mammoth)

May Thomas

Loc: Metaline dist. **Owner:** Drumheller Investment Co. (1937). **Ore:** Lead, zinc. **Ref:** 113, 6/17/37, p. 7.

Maybeso (69)

Loc: Sec. 15, (40-44E), Metaline dist. **Prop:** 2 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Said to be small values in lead and zinc. **Dev:** Open cuts. **Ref:** 29, p. 57.

Meade (47)

Loc: SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, (40-43E), Metaline dist. **Access:** 1 mi. W. of State Highway No. 6 on Slate Cr. road. **Prop:** 8 claims. **Owner:** A. L. Lakin and Ed Tanghe, Metaline Falls, Wash. (1941). **Ore:** Lead, copper. **Ore min:** Pyrite, marcasite, galena, chalcopyrite. **Gangue:** Calcite, quartz. **Deposit:** Ore minerals occur as bunches along bedding planes in dolomite. **Dev:** 2 adits, each about 110 ft. long. **Ref:** 5, p. 200. 7, p. 51. 158.

Metaline Contact (91)

(see under zinc)

Metaline Falls (83)

(see also Pend Oreille Mines & Metals Co. under zinc)

Loc: SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, (39-43E), Metaline dist. **Elev:** 2,000 ft. **Access:** $\frac{1}{4}$ mi. N. of town of Metaline Falls. **Prop:** 1 claim. **Owner:** Pend Oreille Mines & Metals Co., Spokane, Wash. (1943). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite. **Gangue:** Dolomite. **Deposit:** Galena and sphalerite are disseminated in shattered dolomite above a thrust fault contact with slate. **Dev:** 150-ft. shaft, diamond drilling. Ore also exposed in the intake tunnel and surge tank excavation for the power plant in 1937. **Ref:** 128, p. 75.

Metaline Metals (72)

(see under zinc)

Metaline Mining & Leasing Co. (101)

(see under zinc)

Meteor (116)

(see under silver)

Midas

(see Ries)

Mockingbird (43)

Loc: NE. cor. sec. 34, (40-43E), Metaline dist. **Owner:** Drumheller Investment Co. (1937). **Ore:** Lead, zinc. **Ref:** 73, pp. 60-62. 113, 6/17/37, p. 7.

Mohawk (81)

(see also Grandview Mines, Inc. under zinc)

Loc: SE $\frac{1}{4}$ sec. 15, (39-43E), Metaline dist. **Prop:** Part of Grandview group. **Ore:** Lead. **Prod:** 1926. **Ref:** 73, pp. 59-60. 97, 1926, p. 468.

Morning and Mammoth (80)

Loc: NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, (39-43E), Metaline dist. **Elev:** 2,100 ft. **Access:** About 4 mi. from Metaline Falls on Slate Cr. road. **Owner:** Metaline Metals Co. (1931-1941). Morning Mining Co. (1907-1909). Morning Mammoth Concentrator Co. (1908). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite. **Gangue:** Dolomite, silicified carbonate rock, paligorskite. **Deposit:** Disseminations in breccia. **Dev:** 372-ft. adit and 135 ft. of drifts accessible. **Assays:** 8% Pb, 4 oz. Ag. **Ref:** 46, p. 8. 114, no. 5, 1909, p. 56. 116, no. 10, 1907, p. 18; no. 3, 1908, p. 57; no. 5, 1908, p. 116; no. 6, 1908, p. 139. 128, pp. 71-72.

Mount Pisgah (129)

Loc: Sec. 16, (30-45E), Newport dist. **Prop:** State land. **Owner:** State of Washington. **Ore:** Lead, silver, copper, zinc. **Deposit:** Said to be a mineralized quartz vein 18 in. wide. **Ref:** 29, p. 67.

Mountain Goat (15)

Loc: Sec. 2, (40-43E), Metaline dist. **Access:** 1 mi. from road. **Prop:** 10 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight mineralization of silicified limestone largely hidden by heavy overburden. **Dev:** Open cuts, mostly in overburden. **Ref:** 29, p. 51.

Mule Deer (Huffman) (112)

Loc: W. center sec. 15, (35-44E), 4 mi. E. of Ruby, Newport dist. **Elev:** 3,050 ft. **Access:** 3 mi. by road from the Panhandle lumber camp. **Prop:** 80-acre State land lease and 80-acre lease from Panhandle Lumber Co. **Owner:** New Deal Mining Co. (1943). Mule Deer Mining Co. (1937). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, sphalerite, pyrite. **Gangue:** Quartz. **Deposit:** Described as a pipe-like ore body in sheared and altered quartz monzonite. **Dev:** Shallow adit and 30-ft. shaft. **Improv:** 50-ton flotation mill installed in 1938. **Ref:** 29, p. 64. 46, p. 39. 104, 5/15/37, p. 31. 128, pp. 64-65. 158.

Nelroe (38)

Loc: Secs. 26 and 35, (40-43E), Metaline dist. **Access:** 1 mi. by road from main highway. **Prop:** 6 unpatented claims. **Owner:** J. D. Nelson, Metaline Falls, Wash. (1949). **Ore:** Lead, silver. **Deposit:** Replacement deposit in limestone exposed by trenches for about 200 ft. **Dev:** 90-ft. adit, trenches, open cuts. **Ref:** 29, p. 45.

O. K. (98)

(see under silver)

Ore Hill (103)

(see under zinc)

Oriole (92)

(see under zinc)

Pacnor Mines

(see under zinc)

Pat (77)

Loc: Sec. 32, (39-44E), Metaline dist. **Access:** Road. **Prop:** 5 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver, gold. **Deposit:** Sparsely mineralized narrow quartz stringers in a fracture zone. **Dev:** 300 ft. of partially caved adits. **Ref:** 29, p. 48.

Pay Day (10)

(see under zinc)

Pearson (102)

(see under zinc)

Peewee (8)

(see under zinc)

Pend Oreille Iron, Lead, and Zinc (18)

(see under zinc)

Pend Oreille Mines & Metals Co. (86)

(see under zinc)

Pindle (131)

(see under copper)

Pine Cone-Z Canyon (24)

(see under zinc)

Poorman and Sullivan Lake (78)

Loc: SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, (38-44E), E. of S. end of Sullivan Lk., Metaline dist. **Prop:** 2 unpatented claims: Poorman, Sullivan Lake. **Owner:** J. F. Moore and C. D. Smeltzer, Spokane, Wash. (1945). **Ore:** Lead. **Ore min:** Galena. **Gangue:** Quartz. **Deposit:** Narrow sporadic lenses of galena along a fracture in schist. **Dev:** 200-ft. adit. **Ref:** 157.

Prouty (76)

(see under silver)

Queen Bess

(see Skippy and Queen Bess)

Red Crown (48)

Loc: Sec. 35, (40-43E), Metaline dist. **Access:** 1 mi. from road. **Prop:** 9 unpatented claims. **Owner:** E. O. Dressel and associates, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc, iron. **Deposit:** Replacement of silicified limestone. Zone has been exposed for 200 ft. on the surface and about 40 ft. in width in the adits. **Dev:** 200 ft. of adits, 400 ft. of stripping, numerous open cuts. **Assays:** Low-grade ore. **Ref:** 29, pp. 43-44.

Red Top (Bailey-Hanson) (52)

(see also Grandview Mines, Inc. and Metaline Mining & Leasing Co. under zinc)

Loc: Secs. 1 and 2, (40-44E), Metaline dist. **Elev:** 4,500 ft. **Access:** Forest Service road. **Prop:** 19 unpatented claims. **Owner:** Grandview Mines, Inc. and Metaline Mining & Leasing Co. are jointly leasing from Raymond Bailey and associates, Metaline Falls, Wash. (1952). **Ore:** Lead, zinc. **Ore min:** Sphalerite, galena, smithsonite. **Gangue:** Dolomite. **Deposit:** Replacement deposit in silicified dolomite has been exposed in open cuts for 1,500 ft. along the strike. **Dev:** 150 ft. of adits, numerous open cuts. **Improv:** Several buildings. **Assays:** Ore shipped said to av. 40% Pb. **Prod:** 5 tons of crude lead ore. **Ref:** 29, p. 59. 104, 3/30/32, p. 28. 128, pp. 63-64. 133, p. 30. 158.

Ries (Gold Arrow, Eagle, Midas, Golden Anchor, Katydid) (127)

Loc: N $\frac{1}{2}$ NW $\frac{1}{4}$ sec. 12, (31-45E), on W. bank of Pend Oreille R. **Elev:** 2,200 ft. **Access:** 2 mi. by road N. of Newport. Milwaukee railroad crosses the property. **Prop:** 2 claims: Eagle, Owl; and 40 acres of deeded land. **Owner:** Hartman A. Ries, Metaline Falls, Wash. (1941). Ries Mining Co. (1919-1933). Gold Arrow Mines, Ltd. (1936). **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, pyrite, some chalcopryrite. **Deposit:** Mineralized quartz vein in quartz diorite porphyry near its contact with quartzite. Vein said to be 6 ft. wide. **Dev:** 80-ft. shaft on Owl claim and 215-ft. shaft on Eagle claim, also a 40-ft. adit. **Improv:** 3 buildings (1935). **Assays:** A carload of ore shipped in 1922 to Bunker Hill smelter assayed 0.16 oz. Au, 15.5 oz. Ag, 9.8% Pb. **Prod:** 3 carloads of ore said to have been shipped. **Ref:** 29, p. 65. 73, pp. 46-47. 97, 1919, p. 294; 1922, p. 254. 98, 1920-1926. 104, 6/15/33, p. 18; 9/15/36, p. 34. 129, pp. 80-81. 141, p. 22. 158.

Riverside (49)

(see also Pend Oreille Mines & Metals Co. under zinc)

Loc: W $\frac{1}{2}$ SE $\frac{1}{4}$ sec. 35, (40-43E), in vertical cliffs on E. side of Pend Oreille R., Metaline dist. **Elev:** 2,000 ft. **Owner:** Pend Oreille Mines & Metals Co. (1943). Silver-Lead Mining Co. (1907). Riverside Mining Co. (1909). Metaline Metals Co. (1932). **Ore:** Lead. **Ore min:** Galena, pyrite, chalcopryrite. **Gangue:** Iron oxides, coarse calcite, gypsum, native sulfur. **Deposit:** Fissure veins in dolomite, one exposed for vertical distance of 250 ft. has width of 2 to 8 ft. **Ref:** 5, pp. 199-200. 7, pp. 50-51. 114, no. 5, 1909, p. 54. 116, no. 12, 1907, p. 16. 128, p. 74.

Riverview (39)

(see under zinc)

Robert E. Lee (50)

Loc: NW $\frac{1}{4}$ sec. 35, (40-43E), $\frac{1}{2}$ mi. W. of mouth of Slate Cr., Metaline dist. **Access:** 1 mi. of trail from Ledbetter Lk. road. **Prop:** 5 patented claims, including Robert E. Lee. **Owner:** Sullivan Mining Co., Wallace, Idaho (1950-1952). San Ramone Mining Co. (1924). Drumheller Investment Co. (1937). Columbia Lead & Zinc Mining Co. (1943). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite. **Gangue:** Dolomite. **Deposit:** Disseminated sphalerite and galena in dolomite. Mineralized zone has been

traced for 2,000 ft. along the strike. **Dev:** Short inclined shaft, a few open pits. **Ref:** 29, p. 54. 69, p. 14. 73, p. 63. 113, 6/17/37, p. 7. 128, p. 70.

Rocky Creek (111)

(see under silver)

Saddle (22)

(see under zinc)

Salmon (58)

Loc: Sec. 11, (40-44E), Metaline dist. **Access:** 1 mi. from road. **Prop:** 4 unpatented claims. **Owner:** Messrs. Bailey and Johnson, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Replacement deposit in silicified limestone has an exposed length of 20 ft. and a width of 2 ft. **Dev:** Open cuts and trenches. **Ref:** 29, p. 58.

Sanborn (53)

Loc: Near international boundary W. of Bailey-Hanson group, Metaline dist. **Ore:** Lead. **Ore min:** Galena. **Deposit:** High-grade streak of galena. **Ref:** 128, p. 64.

Scandinavian

(see Lead Queen)

Schallenger (Schellenberg) (73)

Loc: 2 $\frac{1}{2}$ mi. N. of Metaline Falls on E. side of Pend Oreille R., approx. sec. 11, (39-43E). **Elev:** 2,550 ft. **Prop:** May be part of present holdings of Pend Oreille Mines & Metals Co. **Ore:** Lead. **Gangue:** Dolomite breccia. **Deposit:** Mineralized dolomite breccia along fault planes. **Dev:** Surface trenches 1 to 5 ft. deep and 6 to 100 ft. long. **Prod:** Small shipment in 1918. **Ref:** 5, pp. 198-199. 7, pp. 49-50. 97, 1918, p. 507.

Schellenberg

(see Schallenger)

Silver Crescent (21)

Loc: Sec. 11, (40-43E), Metaline dist. **Access:** Road. **Prop:** 2 unpatented claims. **Owner:** J. D. Nelson, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Replacement of silicified limestone. A slightly mineralized area is exposed for 200 ft. **Dev:** 90 ft. of adits, numerous open cuts. **Ref:** 29, p. 37.

Silver Crest

(see La Sota under silver)

Silverado

(see Z Canyon)

Skippy and Queen Bess (Fairview Copper) (113)

Loc: Sec. 23 and SW $\frac{1}{4}$ sec. 14, (34-44E), Newport dist. **Elev:** 4,000 ft. **Access:** Road. **Prop:** 2 unpatented claims. **Owner:** Jack Gallagher and associates, Newport, Wash. (1941-1948). **Ore:** Lead, silver, copper, gold. **Deposit:** Upper adit exposes 14 ft. of quartz vein 10 to 12 in. wide highly mineralized with argentiferous galena. Lower adit shows breccia zone with quartz and galena. **Dev:** 105-ft adit and caved 80-ft. adit. **Assays:** Picked sample assayed 18% Pb, 7 oz. Ag, 4% Cu, \$1.50 Au. **Ref:** 29, pp. 68-69. 139, pp. 53-54.

Slate Creek

(see Whoopie-Galena Hill under zinc)

Snowbird and Stanley (122)

Loc: NE $\frac{1}{4}$ sec. 22, (32-45E), Newport dist. **Access:** $\frac{1}{4}$ mi. from road, by which it is 8 mi. to railroad at Newport. **Prop:** 2 patented claims: Snowbird, Stanley. **Owner:** Newport Mining & Leasing Co. leasing from Ed Alger, Newport, Wash. (1951). Newport Mining Co. (1919-1926). Dr. Sutherland, Newport, Wash. (1941). **Ore:** Lead, silver, copper, arsenic. **Ore min:** Galena. **Deposit:** Mineralized quartz veins 4 to 6 in.

wide. **Dev:** 620-ft. crosscut short of the vein, and a 25-ft. adit. **Ref:** 29, p. 69. 98, 1925, p. 1825; 1926, p. 1589. 139, p. 54. 157. 158.

Snowshoe

(see Jenny Dee-Snowshoe)

Snyder

(see Gold Coin-Hardtack under silver)

Sphinx

(see Torrential-Sphinx under zinc)

Stanley

(see Snowbird and Stanley)

Star (34)

Loc: Sec. 28, (40-44E), Metaline dist. **Access:** 2 mi. from road. **Prop:** 4 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Sparse disseminations of lead and zinc. **Dev:** Open cuts, partially caved. **Ref:** 29, p. 54.

Star (32)

Loc: Sec. 29, (40-44E), Metaline dist. **Access:** ¾ mi. from road. **Prop:** 4 unpatented claims. **Owner:** George Wehnert, Metaline Falls, Wash. (1949). **Ore:** Lead, zinc. **Deposit:** Replacement deposit in limestone has been exposed on the surface for a length of 100 ft. and a width of 20 ft. **Dev:** Open cuts, trenches. **Ref:** 29, p. 59.

Star (Campbell)

(see Campbell under copper)

Star (Independence)

(see Independence under silver)

Sterling (100)

(see under zinc)

Sullivan (88)

(see also Josephine under zinc)

Loc: NW¼ sec. 16, (39-43E), Metaline dist. **Prop:** Part of Josephine property. **Owner:** Sullivan Mining Co. (1924). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite. **Prod:** 1926. **Ref:** 73, p. 59. 97, 1926, p. 468; 1930, p. 674.

Sullivan Lake

(see Poorman and Sullivan Lake)

Sunshine (70)

Loc: Secs. 16 and 21, (40-44E), Metaline dist. **Access:** Road. **Prop:** 10 unpatented claims. **Owner:** E. O. Dressel and associates, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Fracture in dolomite impregnated with quartz stringers and mineralized with lead and zinc. Mineralized zone has been exposed for a length of 100 ft. and a width of 4 ft. **Dev:** Open cuts, trenches. **Ref:** 29, p. 55.

Tamarack (51)

Loc: Sec. 2, (40-44E), Metaline dist. **Prop:** 5 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight showings of lead and zinc. **Dev:** Open cuts. **Ref:** 29, p. 59.

Texas Slim

(see Georgia Rose-Texas Slim under zinc)

Tom Cat (3)

(see under zinc)

Torrell

Loc: NW. of Ione. **Ore:** Lead, zinc. **Ref:** 108, 9/51, p. 79.

Torrential-Sphinx (6)

(see under zinc)

Troyer (Davenport-Troyer, Gem)

(see Gem under iron)

Troyer (La Sota, Ira Troyer) (66)

Loc: Near center sec. 22, (40-44E), on NE. bank of Slate Cr., Metaline dist. **Elev:** 3,750 ft. **Access:** Road. **Owner:** F. P. La Sota and E. P. Jones, Metaline Falls, Wash. (1951—). Ira Troyer (1943). **Ore:** Lead, zinc. **Ore min:** Galena. **Gangue:** Jasperoid. **Deposit:** Mineralized zone 50 ft. in dia. in brecciated dolomite directly below Ledbetter slate. **Dev:** Diamond drill holes. **Ref:** 104, 7/15/34, p. 27. 128, p. 64. 133, p. 36. 158.

Twin Lakes (14)

Loc: Secs. 22 and 27, (40-43E), Metaline dist. **Access:** Road. **Prop:** 3 unpatented claims. **Owner:** James Ehle and associates, Metaline, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Replacement deposit in silicified limestone has been exposed in several places along the strike for a distance of 200 ft. **Dev:** 40-ft. shaft, open cuts, trenches. **Ref:** 29, p. 58.

Uncas (35)

(see under zinc)

Velvet

Loc: Metaline dist. **Owner:** Northwest Explorations, Inc. (1931). **Ore:** Lead, zinc. **Ref:** 106, 9/17/31.

Velvet Lode

(see King Tut)

Washington (Washington Rock) (84)

(see also Pend Oreille Mines & Metals Co. under zinc)

Loc: NE¼ sec. 21, (39-43E), on W. bank of Pend Oreille R., on top of Washington Rock. **Elev:** 2,700 ft. **Access:** ¼ mi. by road from the town of Metaline Falls. **Prop:** Group of claims including the Washington. **Owner:** Pend Oreille Mines & Metals Co. (1943). Lead King Mines Co., Inc. (1924-1926). Lehigh Portland Cement Co. (1935-1936). **Ore:** Lead, zinc, silver, iron. **Ore min:** Limonite, galena, pyrite, sphalerite. **Gangue:** Dolomite. **Deposit:** Said to be a body of solid pyrite mixed with galena. Ore occurs as a replacement of dolomite along a fracture zone between two faults. Limonite body formed by oxidation of pyrite. **Dev:** 90-ft. adit, several open cuts. **Assays:** Smelter returns on a sample of the galena-pyrite ore showed 26.2% Pb, 12.6% Zn, 0.8 oz. Ag, no Au, 15.4% Fe. **Prod:** Some production of lead-silver-zinc ore. Limonite was mined by the Lehigh Portland Cement Co. for use in portland cement in 1936. **Ref:** 46, pp. 7-19. 73, pp. 55-56. 98, 1925, p. 1822; 1926, p. 1586. 128, pp. 75, 78. 158.

Washington Rock

(see Washington)

West

(see Blue Jim under silver)

Whoopie-Galena Hill (64)

(see under zinc)

Wolf Creek (Berkin) (104)

Loc: N½NW¼ sec. 4, (38-43E), on E. side Pend Oreille R., Metaline dist. **Elev:** 2,300 ft. **Access:** 2½ mi. by road S. of Metaline Falls. **Prop:** 14 claims: Wolf Creek Lead Nos. 1-9, Silver Lead Nos. 1-3, and 2 others. **Owner:** Fred E. Davenport and Ira Troyer (1945). **Ore:** Lead, zinc, silver, iron. **Ore min:** Galena, sphalerite, pyrite, hemimorphite (?), limonite. **Gangue:** Dolomite, paligorskite, gypsum. **Deposit:** Breccia zone in dolomite between 2 intersecting shear zones. Exposed to width of 15 ft. and length of 80 ft. in one adit. **Dev:** Several shallow adits and surface cuts and an inaccessible inclined shaft. **Ref:** 29, p. 42. 46, p. 34. 73, p. 73. 104, 7/15/34, p. 27. 128, p. 75. 158.

Woodpecker (41)

(see under zinc)

Yellowhead

(see under zinc)

Z Canyon (Pine Cone-Z Canyon)

(see Pine Cone-Z Canyon under zinc)

Z Canyon (Silverado) (7)

(see also Pend Oreille Mines & Metals Co. under zinc)

Loc: SW¼ sec. 11, (40-43E), on E. side Pend Oreille R., Metaline dist. **Elev:** 2,300 ft. **Access:** 2 mi. W. of Crescent Lk. by road. **Prop:** 18 unpatented claims. **Owner:** Pend Oreille Mines & Metals Co., Spokane, Wash. (1943). Washington Mining & Milling Co. (1910-1930). Z-Canyon Mutual Mines Co. (1931-1932). Z-Canyon Consolidated Mines Co. (1934-1936). Z-Canyon Mining Co. (1941). **Ore:** Lead, zinc, gold. **Ore min:** Galena, sphalerite, smithsonite, greenockite. **Gangue:** Dolomite, coarse calcite. **Deposit:** Ore minerals disseminated in dolomite and breccia. Mineralized zone has been exposed for a length of 800 ft. on the surface. **Dev:** Several shallow cuts and 2 adits totaling about 120 ft. **Prod:** Small amount in 1926. **Ref:** 29, p. 50. 73, p. 72. 97, 1925, p. 559; 1926, p. 468. 104, 2/15/34, p. 20; 10/30/35, p. 25; 12/15/36, p. 27. 106, 5/21/31; 5/19/32; 7/34. 113, 6/34, p. 15; 7/34, p. 15; 10/34, p. 14; 8/36, p. 6. 128, pp. 75-76. 158.

Z Canyon Mutual (19)

(see under zinc)

PIERCE COUNTY**Silver Creek (2)**

(see under gold)

Silver Creek Gold & Lead (1)

(see under gold)

SKAGIT COUNTY**Alta (12)**

Loc: Approx. in sec. 24, (35-13E). **Prop:** 4 claims: Alta, Montreal, Cerrico, Helena Butte. **Ore:** Lead, silver, zinc. **Ore min:** Galena, sphalerite, pyrite, arsenopyrite. **Deposit:** A cross vein of the Boston vein consisting of a quartz vein in a shear zone in gneiss near diorite contact. **Ref:** 13, p. 140.

Black Canyon

Loc: Cascade dist. **Ore:** Lead. **Ore min:** Galena. **Deposit:** 12-in. paystreak in 4½-ft. vein. **Ref:** 63, p. 56.

Boston (13)

Loc: Sec. 24, (35-13E), and sec. 19, (35-14E), N. side of Boston Basin. **Elev:** 5,500 to 6,000 ft. **Access:** Trail from end of Cascade R. road. **Prop:** 4 patented claims. **Owner:** Adolph Behrens and sons estate (1934). J. C. and G. L. Rouse (1892). **Ore:** Lead, silver, zinc, gold, copper. **Ore min:** Galena, arsenopyrite, pyrite, sphalerite, calcanthite, chalcocopyrite. **Gangue:** Quartz, calcite, grossularite. **Deposit:** A 6- to 9-ft. quartz vein in foliated diorite. Some faulting along the vein. **Dev:** 35-ft. adit and a 60-ft lower adit. **Assays:** Chip sample across back of upper adit shows 8 in. of ore assaying 0.16 oz. Au, 8.4 oz. Ag, 0.2% Cu, 22.1% Pb, 13% Zn; and 6 ft. of ore assaying 0.02 oz. Au, tr. Ag, 0.4% Pb, 1.5% Zn. **Prod:** 2 tons shipped in 1890's. **Ref:** 12, p. 93. 13, p. 138. 63, p. 55. 105, no. 21, vol. 62, p. 325. 158.

British

(see Skagit Queen under silver)

Buchanan

(see Queen under copper)

Cascade (24)

Loc: NW¼ sec. 7, (34-13E), on S. Fk. of Cascade R. **Prop:** 3 claims: Cascade, Iron Clad, Silver Butte. **Owner:** Messrs. McIntosh and Daly (1892). **Ore:** Lead, silver, gold. **Ore min:** Pyrite. **Deposit:** 5-ft. vein with a 10-in. paystreak. **Dev:** 100-ft. adit. **Assays:** 32% to 37% Pb, 48 to 51 oz. Ag, tr. Au. **Ref:** 13, p. 141. 63, p. 56.

Cascade Minerals

Loc: Thunder Cr. dist. **Owner:** Cascade Minerals Corp. (1928). **Ore:** Lead, silver. **Prod:** 1927. **Ref:** 97, 1928, p. 701.

Cerrico

Loc: T. 35 N., R. 13 E., Cascade dist. **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite, arsenopyrite, pyrite. **Deposit:** Quartz vein in shear zone in gneissic diorite. **Ref:** 13, p. 173.

Chicago (14)

Loc: Western extension of the Boston claim in sec. 24, (35-13E), Cascade dist. **Prop:** 4 claims: Chicago, Cincinnati, New York, Buffalo. **Owner:** Gilbert, Landry, Landers and Co. (1892). **Ore:** Lead, silver, gold, zinc. **Ore min:** Galena, sphalerite, arsenopyrite, pyrite. **Deposit:** 6- to 9-ft. quartz vein in gneissic diorite. **Ref:** 13, p. 139. 63, p. 55.

Dorothy

(see Thunder Creek)

Eldorado (11)

(see under silver)

Epoch (25)

Loc: Near center E½ sec. 10, (34-13E), on Middle Fk. of Cascade R. **Access:** 2½ mi. by trail from Mineral Park. **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Said to be a 3-ft. vein of solid galena ore. **Dev:** Adit. **Assays:** 38% to 45% Pb, 39 to 102 oz. Ag, tr. Au. **Ref:** 13, p. 141.

Everett

(see Willis and Everett under silver)

Everett Extension

(see under silver)

Friend (16)

(see under silver)

Grand Republic (27)

Loc: Sec. 1, (34-13E), Cascade dist. **Ore:** Lead, silver. **Ref:** 58, p. 27. 63, p. 56.

Granite (22)

(see under silver)

Hartford (3)

Loc: Sec. 19, (35-14E), eastern extension of the Boston claim. **Prop:** 1 claim. **Owner:** George Sanger (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Gangue:** Quartz. **Deposit:** Similar in width and character to the Boston vein. **Ref:** 13, p. 139.

Icigate

Loc: Thunder Cr. dist. **Ore:** Lead. **Ore min:** Galena. **Ref:** 63, p. 59.

Iowa-Olympia

(see under silver)

Johnsburg (23)

Loc: Secs. 27 and 34, (35-13E), Cascade dist. **Elev:** 5,100 ft. **Access:** 22 mi. from Marblemount on Cascade R. road. **Prop:** 4 patented claims: Johnsburg, Lookout, Tarcoo Union, Prospectors Friend. **Owner:** Kaess Mining Co., Mount Vernon, Wash. (1954—). Silver Queen Mining & Smelting Co. (1892).

Johnsburg Mining & Milling Co., Mount Vernon, Wash. (1949-1954). **Ore:** Lead, silver, copper, zinc, gold. **Ore min:** Galena, cerussite, anglesite, chalcopryrite, sphalerite, mimetite, malachite, azurite. **Gangue:** Leached silicified schist, calcite. **Deposit:** Mineralized shear zone in schist. A lens of galena ore 50 ft. long and from 4 to 30 in. wide is exposed at one place on the vein. **Dev:** 200-ft. drift, 50-ft. adit, 15-ft. open cut. **Improv:** Cabin, aerial tram under construction (1955). **Assays:** 5 samples across the vein from 10 to 28 in. long over a distance of 35 ft. along the vein showed an av. value of 0.077 oz. Au, 42.64 oz. Ag, 50.74% Pb. 1953 shipments av. 56.9% Pb, 0.4% Zn, 0.42% Cu, 0.067 oz. Au, 40.4 oz. Ag. **Prod:** 1953 (19,638 lb. ore), 1955 (18,056 lb. ore). **Ref:** 13, p. 140. 22, p. 4. 63, p. 56. 133, p. 35. 158.

Kildare (17)

Loc: Sec. 25, (35-13E), Cascade dist. **Prop:** 2 claims: Kildare, Harrison. **Ore:** Lead, silver, zinc. **Deposit:** A cross vein of the West Seattle said to be similar to the Boston. **Ref:** 13, p. 140.

Lakeside

Loc: On S. side of Silver Basin on the S. Fk. of Thunder Cr. **Access:** Trail. **Prop:** Many claims. **Owner:** Silver Tip Mining & Power Co. (1918-1926). Silver Trail Mining Co. (1922). **Ore:** Lead, zinc, copper, gold, silver. **Ore min:** Galena, chalcopryrite, sphalerite, pyrite. **Gangue:** Quartz. **Deposit:** Said to be 10 veins of varying size in granite and metamorphic rocks. **Assays:** A typical mineral analysis said to show 23.66% galena, 16.32% sphalerite, 28.14% pyrite, 2.58% chalcopryrite, 51.96 oz. Ag, 0.18 oz. Au. **Ref:** 46, p. 227. 88, pp. 51-52. 98, 1918-1926. 158.

Logan No. 2 (6)

(see under silver)

Marine

(see under gold)

Michigan (26)

(see under silver)

Midas (18)

(see under silver)

Olympia

(see Iowa-Olympia under silver)

Ontario (4)

Loc: Near center sec. 19, (35-14E), on eastern extension of the Boston vein. **Prop:** 1 claim. **Owner:** Grant, Ferguson, Getchell and Co. (1892). **Ore:** Lead, silver, gold. **Deposit:** Presumably similar to the Boston. **Ref:** 13, p. 139.

Pioneer (28)

(see under silver)

Protection (7)

Loc: Approx. in NE. cor. sec. 16, (35-14E), ¼ mi. or less W. of the Thunder Cr. mine cabin. **Elev:** 5,000 ft. **Access:** Trail. **Owner:** Protection Mining Co. (1940). **Ore:** Lead, zinc, copper. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite. **Deposit:** Fault in diorite is mineralized to a max. width of 6 in. Mineralization is rich over this narrow width. **Dev:** 500-ft. adit. **Ref:** 158.

Queen and Buchanan (19)

(see under copper)

Sierra Grande (5)

Loc: Extension of the Hartford claim in sec. 19, (35-14E), Cascade dist. **Prop:** 1 claim. **Owner:** Grant, Ferguson, Getchell and Co. (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Gangue:** Quartz. **Deposit:** Presumably similar to Boston and Hartford claims. **Ref:** 13, p. 139.

Silver Tip (8)

Loc: Across Thunder Cr. from the Skagit Queen property in secs. 16 and 17, (35-14E). **Access:** Trail. **Prop:** 4 patented claims: Imperial, English No. 3, Liberty, Lakeview. Also 8 unpatented claims and 2 millsites. **Owner:** Silver Tip Mining Co. (1941). Silver Tip Mining & Development Corp. (1918-1934). **Ore:** Lead, silver, zinc, gold. **Ore min:** Galena. **Deposit:** Reportedly a 3- to 4-ft. vein containing 1 to 2 ft. of ore. Other veins reported. **Dev:** Open cuts, short adits, 40-ft. shaft. **Assays:** Sample across 12 to 16 in. of ore showed 20.5% Pb, 6.6% Zn, 19.9 oz. Ag, 20¢ Au. **Ref:** 119, no. 2, 1912, p. 1. 158.

Skagit Queen (2)

(see under silver)

Soldier Boy (20)

(see under gold)

Standard

(see under silver)

Stenmo (9)

Loc: At Park Cr. Pass, at head of Thunder Cr. **Access:** Trail. **Prop:** 2 claims. **Owner:** John Stenmo, Seattle, Wash. (1934). **Ore:** Lead, silver, zinc. **Ore min:** Galena. **Deposit:** Vein 2 to 4 ft. wide in granite. **Ref:** 158.

Thunder Creek (Dorothy) (10)

Loc: 2 mi. W. of Park Cr. Pass. Approx. in sec. 16, (35-14E). **Elev:** 4,100 to 6,000 ft. **Access:** Branch trail from Thunder Cr. trail. About 22 mi. by trail from highway at Diablo Dam. **Prop:** 6 patented claims: Dorothy Nos. 1 to 6, and a millsite. **Owner:** Thunder Creek Mining Co. (1928-1952). **Ore:** Lead, silver, zinc, copper, gold. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite. **Gangue:** Quartz, altered diorite. **Deposit:** Vein av. 5 in. wide along a fault in diorite. Vein composed of breccia cemented by gouge and ore minerals. A ton or so of ore on the trail below the mine. **Dev:** 425-ft. adit, 760-ft. adit. **Assays:** Sample across mining width showed 10% Pb, 4% Zn, 7 oz. Ag. A sample width of 2 ft. in upper adit 215 ft. from portal showed 5% Pb, 4.7% Zn, 0.34% Cu, 4.25 oz. Ag, 0.01 oz. Au. **Ref:** 46, p. 229. 97, 1929, p. 427. 106, 7/16/31. 157. 158.

Ventura (21)

(see under silver)

West Seattle (15)

Loc: Parallel to the Boston group in sec. 24, (35-13E), Boston Basin. **Prop:** 3 claims: Mitus, Diamond, West Seattle. **Ore:** Lead, silver, zinc. **Deposit:** Said to be similar to the Boston in size and character. **Ref:** 13, p. 141.

Willis and Everett (1)

(see under silver)

SKAMANIA COUNTY

Athens

(see under copper)

Bonanza (4)

Loc: Sec. 12, (10-5E), Mt. St. Helens dist. **Ore:** Lead. **Ore min:** Galena. **Deposit:** 2-ft. vein with an 8-in. paystreak. **Ref:** 63, p. 50.

Bumble Bee

(see under copper)

Chief

(see Ripper and Chief under copper)

Commonwealth (7)

(see under copper)

Copper Bottom

(see under copper)

Golconda (6)

(see under gold)

Gold Creek

(see Zinc Creek under zinc)

Grizzly Creek (5)

(see under gold)

Independence (2)

(see under copper)

Last Chance (10)

(see under copper)

Minnie Alice (1)

(see under copper)

Mount Fairy (8)

(see under gold)

Rainbow (11)

(see under vanadium)

Ripper and Chief

(see under copper)

Snowflake (3)

Loc: NW¼ sec. 13, (10-5E), Mt. St. Helens dist. **Ore:** Lead, zinc. **Ref:** 63, p. 50.

Zinc Creek (9)

(see under zinc)

SNOHOMISH COUNTY**Ala-Dickson (27)**

(see under copper)

Alleghany

(see Foggy under copper)

Alta (47)

(see under gold)

Anacortes

Loc: Silverton dist. **Prop:** 3 claims. **Owner:** George Hall and M. L. Moleque (1897). **Ore:** Lead. **Ore min:** Galena, arsenopyrite. **Ref:** 63, p. 18.

Arlington (15)

(see under copper)

Bald Mountain (16)

(see under copper)

Baltimore (32)

(see under gold)

Bear (48)

(see under gold)

Beatrice

(see Sunset and Beatrice)

Bell and Crown (24)

(see under copper)

Big Four (28)

Loc: NW¼ sec. 33, (30-10E), on N. slope of Big Four Mtn., Silverton dist. **Prop:** 7 claims. **Owner:** Big Four Mining Co. (1909). **Ore:** Lead, silver, antimony. **Ore min:** Galena, arsenopyrite, probably tetrahedrite. **Deposit:** 30 in. of sulfide ore between syenite hanging wall and granite footwall. **Dev:** 100-ft. adit. **Assays:** \$50 Pb, Ag, Sb. **Ref:** 14, p. 41. 63, p. 19. 114, no. 5, 1909, p. 99.

Billy Lee (49)

Loc: Sec. 7, (28-11E), on W. side of Silver Cr. about 2 mi. S. of Mineral City. **Owner:** A. W. Frater, Senator Vestal, and Judge Denny (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 18-ft. vein carries a 2-ft. paystreak of ore. **Dev:** 112-ft. adit, 25-ft. adit. **Assays:** Said to run as high as \$200 Au, Ag, Pb. **Ref:** 13, p. 157. 14, p. 29. 63, p. 33.

Blue Bird (75)

(see under gold)

Bluebell (50)

(see under gold)

Bonanza

(see Mineral Center under gold)

Bullion King

(see under gold)

Calumet

(see Glacier Peak under copper)

Calumet (72)

(see under gold)

Champion (51)

(see under gold)

Clara Thompson

(see Jasperson under gold)

Cleveland (19)

(see under copper)

Cleveland

Loc: Silver Cr. dist. **Prop:** 1 claim. **Owner:** Mr. Maxwell (1892). **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** 5-ft. vein. **Ref:** 13, p. 163. 14, p. 30.

Commonwealth

(see Jasperson under gold)

Cooperative (83)

(see under copper)

Copper Chief (52)

(see under copper)

Cornucopia (29)

(see under gold)

Courtney (8)

(see under copper)

Crown

(see Bell and Crown under copper)

Crown Point (53)

Loc: Sec. 8, (28-11E), in Straightup Gulch on E. side of Silver Cr. **Prop:** 5 claims: Crown Point, Silver Shield, Helena, Hidden Treasure, Crawford. **Owner:** Crown Point Mining Co. (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 5-ft. vein, 4-ft. vein, 12-ft. vein, 11-ft. vein, and 20-ft. vein. **Dev:** 30-ft. adit and several open cuts. **Assays:** A mill-run from the Crown Point claim returned 40% Pb, 107 oz. Ag per ton. **Ref:** 13, pp. 161-162. 14, p. 30. 58, p. 17. 63, p. 30.

Daisy (45)

(see under gold)

Darrington

(see Gold Mountain under copper)

Deerfly (14)

Loc: Sec. 11, (31-15E), in Suiattle Pass, Glacier Peak dist. **Elev:** 5,000 ft. **Prop:** 9 claims. **Ore:** Lead, silver, gold. **Deposit:** 8-ft. vein in shear zone in granitic rock. Exposed for length of 1,000 ft. **Dev:** 500 ft. of adits and drifts in ore. **Assays:** 1 oz. Au, 12 to 30 oz. Ag, 40% to 60% Pb. **Ref:** 14, p. 12. 158.

Delta

(see under copper)

Dominion

Loc: T. 28 N., R. 10 E., in Dominion Gulch on Salmon Cr., Silver Cr. dist. **Prop:** 7 claims. **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** 2 parallel 3-ft. veins. **Ref:** 14, p. 31. 63, p. 33.

Edison

(see Mineral Center under gold)

Editor (76)

(see under silver)

Elmo

(see Gold Bar and Elmo)

Emma Moore (38)

Loc: Sec. 27, (29-11E), on W. side of '76 Basin about 1 mi. from Monte Cristo. **Access:** Trail from Monte Cristo. **Ore:** Lead, silver, gold. **Ore min:** Arsenopyrite, pyrite, galena. **Deposit:** 24-ft. fracture zone in andesite. **Assays:** \$40 Au, Ag, 15% Pb. **Ref:** 13, p. 149. 14, p. 23.

Emma No. 2

Loc: Silver Cr. dist. **Ore:** Lead, gold, silver. **Ore min:** Galena. **Deposit:** 6-ft. vein. **Assays:** \$50 per ton. **Ref:** 13, p. 163. 14, p. 31.

Etruria

Loc: Silver Cr. dist. **Prop:** 1 claim. **Owner:** John Wesley (1892). **Ore:** Lead, gold, silver. **Ore min:** Galena, pyrite. **Deposit:** 10-ft. vein. **Assays:** \$25 Au, Ag. **Ref:** 13, p. 163. 14, p. 31.

Eureka (18)

(see under copper)

Feldt (4)

(see under silver)

Florence Rae (73)

(see under copper)

Foggy (34)

(see under copper)

"45" (25)

(see under silver)

Four Brothers (54)

Loc: Sec. 6, (28-11E), adjacent to the Silver Slipper property, Silver Cr. dist. **Prop:** 1 claim. **Owner:** John Dowd, P. J. Field, and William Flobeck (1892). **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** 4-ft. vein with 14 in. of ore. **Ref:** 13, p. 162. 14, p. 32.

Garfield

Loc: Silver Cr. dist. **Prop:** 1 claim. **Owner:** Lloyd and Parkinson (1892). **Ore:** Lead, gold, silver. **Ore min:** Galena, pyrite. **Deposit:** 6-ft. vein. **Assays:** \$30 Au, Ag, Pb. **Ref:** 13, p. 163. 14, p. 32.

Gettysburg (55)

Loc: Sec. 7, (28-11E), E. of Silver Slipper property, Silver Cr. dist. **Prop:** 1 claim. **Owner:** James W. Maple and Dr. Wright (1892). **Ore:** Lead, gold, silver. **Ore min:** Galena, pyrite. **Deposit:** 4½-ft. quartz vein with 15 in. of ore. **Assays:** \$40 Au, Ag. **Ref:** 13, p. 162. 14, p. 32.

Glacier Peak (13)

(see under copper)

Golconda

Loc: On Troublesome Cr. E. of Silver Cr. **Prop:** 3 claims: Pride of the West, Victoria, Monte Cristo. **Owner:** Golconda Mining Co. (1892). **Ore:** Lead, gold, silver. **Ore min:** Galena,

pyrite. **Gangue:** Quartz. **Deposit:** One mineralized shear zone from 4 to 20 ft. wide with 2 ft. of ore. Two other mineralized shear zones. **Dev:** 40-ft. adit and open cuts. **Assays:** \$20 to \$30 Au, Ag, and as high as 42% Pb. **Ref:** 13, pp. 162-163. 14, p. 32.

Gold Bar (69)

(see under copper)

Gold Bar and Elmo

Loc: 4 mi. up Wallace R. from Gold Bar, Index dist. **Ore:** Silver, lead, copper, gold. **Ore min:** Galena, chalcopryrite. **Deposit:** 16-ft. shear zone with 2 ft. of galena ore on both hanging and footwalls. **Dev:** 27-ft. adit. **Assays:** \$44 to \$102 Au, Ag, Pb. **Ref:** 14, p. 17. 63, p. 26.

Gold Mountain (12)

(see under copper)

Good Hope (39)

(see under gold)

Granite and Maud (20)

(see under gold)

Gray Eagle (77)

(see under copper)

Gray Mare (5)

(see under silver)

Gypsy Queen (56)

Loc: Sec. 6, (28-11E), on E. side of the W. Fk. of Silver Cr. **Ore:** Lead, gold, silver. **Ore min:** Galena. **Deposit:** An extension of the Webster vein. **Dev:** 20-ft. adit. **Ref:** 14, p. 33. 63, p. 30.

Hidden Treasure

(see under silver)

Howard

(see Cooperative under copper)

Hunter (9)

(see under copper)

Idaho (57)

Loc: Sec. 7, (28-11E), on W. side of Silver Cr. **Ore:** Lead, gold, silver. **Ore min:** Galena. **Deposit:** 7-ft. vein with from 6 to 12 in. of ore. **Assays:** \$20 to \$40 Au, Ag. **Ref:** 13, p. 157. 14, p. 33.

Imperial (21)

(see under copper)

Index Gold Mines, Inc. (78)

(see under gold)

Iowa

(see Washington-Iowa under copper)

J. B. (40)

(see under gold)

Jasper

Loc: On W. slope of National Mtn., on N. part of Silver Cr. **Elev:** 4,000 ft. **Ore:** Lead, silver. **Ore min:** Galena. **Gangue:** Quartz. **Deposit:** 7-ft. vein with a 12-in. paystreak. **Dev:** 27-ft. drift. **Assays:** Sample from dump assayed 44% Pb, 138 oz. Ag. **Ref:** 12, p. 88.

Jasperson (58)

(see under gold)

Jones (74)

(see under silver)

Kazian (79)

(see under copper)

Keystone (33)

(see under gold)

Lalla Rookh

(see Tobique and Lalla Rookh under gold)

Larson (3)

Loc: Secs. 19 and 30, (32-9E), 2½ mi. from White Horse schoolhouse on the highway between Arlington and Darrington. **Elev:** 1,000 to 4,000 ft. **Access:** 2½ mi. from road. **Prop:** 10 claims. **Owner:** C. A. Larson, Arlington, Wash. (1941). **Ore:** Gold, silver, lead, zinc. **Ore min:** Galena. **Deposit:** Said to be large veins in country rock of limestone and granite. **Dev:** 105-ft. and 40-ft. adits. **Assays:** 0.1 oz. Au, 25 oz. Ag, 3% Zn, 60% Pb. **Ref:** 14, p. 9. 58, p. 38. 158.

Last Chance (80)

(see under gold)

Le Roy (66)

(see under silver)

Lockwood (59)

Loc: SW¼ sec. 7, (28-11E), on W. side of Silver Cr. **Prop:** 2 patented claims. **Ore:** Lead, gold, silver. **Ore min:** Galena, pyrite. **Deposit:** Large vein with from 10 to 30 in. of ore. **Dev:** 90-ft. adit, two 10-ft. adits, 30-ft. adit, another adit of unknown length. **Assays:** \$23 to \$97 per ton. **Ref:** 14, p. 34. 63, p. 28.

Louise

(see Mineral Center under gold)

Lulu (22)

(see under gold)

McCombs

(see Jaspersen under gold)

Magus

(see "45" under silver)

Martin Engdahl (60)

Loc: NE¼ sec. 7, (28-11E), on W. side of Silver Cr. **Access:** 3 mi. up Silver Cr. road from Galena. 11 mi. from railroad at Index. **Ore:** Lead, silver, zinc, copper, gold. **Ore min:** Galena, sphalerite, chalcopryrite, arsenopyrite, pyrite, molybdenite (?). **Gangue:** Quartz. **Deposit:** 3 mineralized shear zones as much as 4 ft. wide in argillite, quartzite, and limestone. Ore is mainly finely disseminated throughout the shear zones. **Dev:** Lower adit 425 ft. long, middle adit of unknown length, upper adit 150 ft. long. **Assays:** Vein 2½ ft. wide showed 0.18 oz. Au, 0.9 oz. Ag, 2.1% Zn. **Ref:** 14, pp. 34-35. 111, p. 10. 158.

Maud

(see Granite and Maud under gold)

Milwaukee (26)

(see under zinc)

Mineral Center (70)

(see under gold)

Mineral Mines (61)

(see under copper)

Monte Cristo (37)

(see under gold)

Morning Star (46)

Loc: NE¼ sec. 4, (28-11E), Silver Cr. dist. **Elev:** 4,100 ft. **Prop:** 5 claims. **Owner:** E. H. Hubbard and John Maxwell (1892). **Ore:** Lead, silver, copper, gold. **Ore min:** Galena, pyrite, chalcopryrite. **Deposit:** Several mineralized shear zones. The main shear zone carries 6 ft. of ore. **Dev:** Several adits aggre-

gating 140 ft. **Assays:** \$40 to \$60 Au, Ag, Pb, Cu. **Ref:** 12, pp. 88-89. 13, p. 161. 14, p. 35. 63, p. 28.

Mountain Goat

Loc: Silver Cr. dist. **Prop:** 1 claim. **Owner:** Scott McKrause (1892). **Ore:** Lead, gold, silver. **Ore min:** Galena, pyrite. **Deposit:** 20-ft. mineralized shear zone. **Assays:** As high as \$150 Pb, Au, Ag. **Ref:** 13, p. 163. 14, p. 35.

Murdock

Loc: Silver Cr. dist. **Prop:** 1 claim. **Owner:** Messrs. Murdock, Noble, and Black (1892). **Ore:** Lead, gold, silver. **Ore min:** Galena, pyrite. **Gangue:** Quartz. **Deposit:** 10-ft. mineralized shear zone. **Ref:** 13, p. 163. 14, p. 35.

Mystery

(see Monte Cristo under gold)

Nesta (10)

(see under copper)

Nickel Bird (23)

(see under copper)

North Star

(see Sunrise under gold)

O and B (67)

(see under copper)

Old Gray Mare

(see Gray Mare under silver)

Oldfield

(see Sunrise under gold)

Ontario (62)

Loc: Sec. 7, (28-11E), just S. of Copper Chief property, Silver Cr. dist. **Prop:** 5 claims. **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Deposit:** 6-ft. mineralized shear zone. Values chiefly in lead. **Dev:** Several short adits. **Ref:** 14, p. 36. 88 pp. 75-76.

P. I. (81)

(see under copper)

Peabody (41)

(see under gold)

Penn

(see Foggy under copper)

Perm

(see under gold)

Pride

(see Monte Cristo under gold)

Pullman

Loc: Silver Cr. dist. **Prop:** 1 claim. **Owner:** Messrs. Maxwell and Parkinson (1892). **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** 3-ft. mineralized shear zone. **Ref:** 13, p. 163. 14, p. 36.

Queen Anne (11)

(see under gold)

Red Cloud (63)

(see under gold)

Republican (35)

Loc: Sec. 13, (29-11E), ¾ mi. SE. of Goat Lk., Monte Cristo dist. **Ore:** Gold, silver, lead. **Ore min:** Pyrite, galena. **Deposit:** 4-ft. fracture zone. **Ref:** 14, p. 25. 63, p. 16.

Ruby King (64)

(see under gold)

Rustler (31)

(see under copper)

Seventy Six (42)

Loc: Sec. 27, (29-11E), on E. side of '76 Basin about 1 mi. S. of Monte Cristo. **Elev:** 5,000 ft. **Prop:** 5 claims. **Ore:** Gold, silver, lead. **Ore min:** Galena, pyrite. **Deposit:** 6- to 24-in. slightly mineralized fracture zone. **Dev:** 130-ft. upper adit, 800-ft. lower adit. **Assays:** Surface samples show \$30.00 Ag, \$22.73 Au, 26% Pb. **Ref:** 1, no. 5, 1892, p. 397. 13, p. 150. 14, p. 25. 63, p. 13, 149, p. 822.

Silver Coin (17)

(see under gold)

Silver Horseshoe (30)

(see under silver)

Silver Lake (43)

(see under gold)

Silver Queen (44)

(see under gold)

Standard

Loc: Silver Cr. dist. **Prop:** 1 claim. **Owner:** Messrs. Lloyd and Parkinson (1892). **Ore:** Lead, gold, silver. **Ore min:** Galena. **Deposit:** 6-ft. shear zone. **Assays:** \$40 Au, Ag, Pb. **Ref:** 13, p. 163. 14, p. 37.

Sunrise (6)

(see under gold)

Sunset and Beatrice (82)

Loc: Sec. 17, (28-11E), on E. side of Silver Cr. **Prop:** 2 claims. **Ore:** Lead, gold, silver. **Ore min:** Galena. **Deposit:** 20-ft. shear zone with 8 to 36 in. of ore. **Dev:** 60-ft. adit. **Assays:** As high as \$80 per ton. **Ref:** 14, p. 36. 63, p. 31.

Threadwell

(see under gold)

Tobique and Lalla Rookh (68)

(see under gold)

Trade Dollar

Loc: Silver Cr. dist., on Trade Dollar Cr. W. of Mineral City. **Elev:** 2,600 ft. **Prop:** 1 claim. **Owner:** J. T. Hubbart and Co. (1892). **Ore:** Lead, silver. **Ore min:** Galena, iron sulfides. **Deposit:** 4-ft. vein. **Dev:** 50-ft. drift. **Assays:** Samples from dump assayed 63% Pb, 37 oz. Ag. **Ref:** 12, p. 89. 13, p. 161.

Vandalia (65)

Loc: SW¼ sec. 7, (28-11E), Silver Cr. dist. **Access:** 13 mi. by road to railroad at Index. **Prop:** 5 claims. **Owner:** R. W. Habel, Index, Wash. (1935). **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Deposit:** 20-ft. shear zone with 6 to 36 in. of ore. **Dev:** 75-ft. shaft with drifts at 2 levels, and a 220-ft. adit. **Assays:** \$40 Pb, Ag, Au. **Ref:** 13, p. 156. 14, p. 38. 63, p. 31. 114, no. 5, 1909, p. 106. 158.

Victory

(see under gold)

Washington-Iowa (71)

(see under copper)

Wayside (1)

(see under copper)

Webster

(see Jasperson under gold)

Whistler (36)

Loc: Sec. 23, (29-11E), on N. slope of Cadet Peak, Monte Cristo dist. **Ore:** Gold, silver, copper, lead. **Ore min:** Pyrite, galena, tetrahedrite. **Deposit:** 4- to 20-ft. fracture zone that carries 1½ ft. of ore. **Dev:** 20-ft. and 30-ft. adits. **Ref:** 14, p. 26, 63, p. 14.

Whitehorse (7)

(see under zinc)

Yankee Boy (2)

(see under copper)

SPOKANE COUNTY**Silver Hill (1)**

(see under tin)

STEVENS COUNTY**A and C (142)**

(see under copper)

Abe Lincoln

(see Comstock)

Acme (Acme-Dora) (161)

Loc: SE¼NW¼ sec. 27, (35-37E), on E. bank of Columbia R. 5 mi. below its junction with Colville R. **Elev:** 2,400 ft. **Access:** 3 mi. by road from a place on the Colville highway 4 mi. S. of the bridge. **Prop:** 2 patented claims. **Owner:** Louis Strauss, Colville, Wash. (1949). **Ore:** Lead, silver, zinc, copper, gold. **Ore min:** Boulangerite, bournonite, andorite, pyrite, arsenopyrite, sphalerite, covellite. **Deposit:** Sparsely mineralized quartz vein in granite, argillite, and associated basic dikes. **Dev:** 250-ft. adit, 80-ft. shaft, open cuts, 1,450-ft. crosscut. **Assays:** Said to assay \$44 Au, Ag, Pb. **Ref:** 30, p. 58. 132, pp. 136-137. 164, pp. 224-225.

Acme-Dora

(see Acme)

Acorn

Loc: Colville dist. **Ore:** Lead. **Ore min:** Galena. **Prod:** Small shipment in 1913. **Ref:** 97, 1913, p. 800.

Admiral (193)

(see under copper)

Admiral Consolidated (91)

(see under zinc)

Advance (65)

(see under zinc)

Aguila (Eagle-Newport) (160)

Loc: SE¼ sec. 25, (35-37E), on N. side of gulch, Kettle Falls dist. **Access:** 11 mi. by road to railroad at Kettle Falls. **Prop:** 2 unpatented claims: Eagle, Newport. Also 5 lots comprising 160 acres. **Owner:** John Marty, Rice, Wash. (1942-1949). **Ore:** Lead, silver, copper, gold. **Ore min:** Pyrite, chalcocite, galena, malachite, azurite, tetrahedrite. **Deposit:** Shear zone 25 ft. wide in argillite and quartzite contains numerous mineralized quartz veins cut by post-mineral faults. **Dev:** 580-ft. adit with 2 short crosscuts and 2 shallow winzes. Also an open cut and a 40-ft. shaft. **Assays:** 8-ft. channel sample along the adit yielded \$6 per ton. 28 sacks of ore assayed 9.5% Pb, 19 oz. Ag, 2.1% Cu, \$1.75 Au. Another sample across 3½ ft. of vein assayed 0.82% Pb, 10 oz. Ag, 0.3% Cu, \$0.35 Au. **Prod:** Trial shipment of 28 sacks of ore in 1938. **Ref:** 158.

Aichan Bee (213)

(see under silver)

Al Ki (145)

Loc: Bruce Cr. area near Silver Trail mine. **Prop:** 5 claims: Silver Wave, Myrtle, Morning, Ranger, Fraction. **Owner:** Al Ki Mining Co. (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** One 4-ft. vein and another 3-ft. vein of galena ore. **Assays:** 17 to 56 oz. Ag, 50% to 64% Pb, 2.5 oz. Au. **Ref:** 12, pp. 81-82. 13, p. 127.

Aladdin (120)

Loc: SW¼ sec. 9 and NW¼ sec. 16, (37-41E), on Rocky Cr. **Elev:** 2,600 ft. **Access:** 22 mi. by county road to railroad at Colville. **Prop:** 240 acres deeded land. **Owner:** Aladdin Mines, Inc. (1936). **Ore:** Lead, zinc, gold, silver, copper. **Ore min:** Galena. **Deposit:** Quartz stringers in schist and limestone. **Dev:** 550-ft. adit. **Assays:** 4% Pb, 2.4% Zn, \$4.55 Au, \$0.80 Ag, 0.47% Cu. **Ref:** 46, pp. 46-47. 158.

Aladdin (Blue Ridge, Sierra Zinc)

(see Sierra Zinc under zinc)

Alma (162)

(see under silver)

Anaconda (86)

(see also Red Top)

Loc: NW. cor. sec. 30, (40-42E), Northport dist. **Elev:** 3,375 to 3,960 ft. **Access:** 2 mi. from Deep Cr. road on Red Top Mtn. road. **Prop:** 2 patented claims. **Owner:** Red Top Mining Co., Spokane, Wash. (1941). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, sphalerite, tetrahedrite. **Gangue:** Quartz, calcite. **Deposit:** 2- to 4-ft. vein between limestone and schist composed of partly replaced country rock and ore minerals in alternate bands. Solid band of galena 6 in. wide at one place. **Dev:** 40-ft. shaft with 30-ft. drift at bottom, 225-ft. adit. **Prod:** 30 tons in 1902. **Ref:** 7, p. 57. 46, p. 76. 58, p. 3. 73, p. 102. 164, pp. 300-301.

A. Anderson (66)

(see under zinc)

Anderson (103)

Loc: Sec. 18, (39-42E), Northport dist. **Owner:** W. L. Clearwaters, lessee, Millwood, Wash. (1951). **Ore:** Lead. **Ref:** 150, p. 27.

Anderson (67)

(see under zinc)

Ark (157)

(see under silver)

Austin

(see Aichan Bee under silver)

Avondale-Dome (Tenderfoot, Gillete) (132)

Loc: SW¼ sec. 23, (37-39E), on S. side of canyon from Chloride Queen property. **Elev:** 3,600 ft. **Access:** 15 mi. up Clugston Cr. road from Colville. **Prop:** 2 claims joined end to end. **Owner:** Lloyd T. Jacobson and Eric Eklund (1941). New York & Sulfide Mountain Mining & Milling Co. (1903). Orient Metals Mining & Smelting Co. (1918-1921). Chloride Queen Mining Co. (1922-1926). **Ore:** Lead, silver, zinc. **Ore min:** Galena predominant, also cerussite, pyrite, calamine, wulfenite, anglesite, limonite, azurite. **Gangue:** Clay and gouge. **Deposit:** Ore minerals occur as nodules and lenses in a 4-ft. fracture zone in limestone. **Dev:** 108-ft. adit on which are a drift and 2 winzes. Also a 125-ft. adit and an open cut. Total workings about 800 ft. **Assays:** Some ore in main adit said to assay 2% Pb, tr. Ag. Other assays show as much as 15 oz. Ag, 60% Pb. **Prod:** Several carloads of ore shipped prior to 1890. **Ref:** 12, pp. 80-81. 13, pp. 125-126. 30, p. 81. 73, p. 112. 97, 1917, p. 507. 98, 1922, 1925, 1926. 112, 1918, p. 196. 164, pp. 239-241.

Bald Eagle (13)

(see under gold)

Banshee (189)

(see under copper)

Baxter

(see Snyder and Baxter under silver)

Bear Mountain (171)

Loc: NW¼ sec. 23, (34-40E), Chewelah dist. **Access:** Road. **Prop:** 3 unpatented claims. **Owner:** Les Young and Roy Demorest, Colville, Wash. (1941). **Ore:** Lead, silver, zinc, gold. **Deposit:** Quartz vein av. about 3 ft. in width. **Dev:** 1,500 ft. of adits. **Ref:** 30, p. 39.

Bechtol (W. J. Bryan, Woohaa) (108)

Loc: Secs. 23 and 26, (39-41E), halfway between the Thompson property and Deep Lk. **Elev:** 2,400 to 2,800 ft. **Access:** ½ mi. by trail NE. of road at S. end of Deep Lk. **Prop:** 3 claims: W. J. Bryan, Kismet, Mannering; a fractional claim; and 20 acres of patented land. **Owner:** Estate of William Bechtol and B. J. Hofer, Northport, Wash. (1949). **Ore:** Lead, silver, iron. **Ore min:** Galena, cerussite, limonite, siderite, anglesite. **Gangue:** Siderite, dolomite, calcite, breccia. **Deposit:** Galena and cerussite occur as nodules in a matrix of soft limonite, clay, and decomposed dolomite along faults of diverse orientation. **Dev:** Crooked adit 1,090 ft. long, 150-ft. adit, 100-ft. incline, 370 ft. of drifts and crosscuts, 50-ft. surface stope, many cuts and pits. **Assays:** Shipments in 1917 and 1918 returned 73.0% to 73.1% Pb, 0 to 1.2 oz. Ag. **Prod:** Reportedly 90 tons of galena ore prior to 1924. 6,034 tons in 1917 and 5,307 tons in 1918 are known to have been shipped by wagon to the Northport smelter. Shipments reported in 1925, 1937, 1939, 1940 (77 tons), and 1943. **Ref:** 7, p. 59. 21, p. 4. 30, p. 99. 73, pp. 98-99. 97, 1917, 1925, 1938, 1940, 1941. 142, pp. 48-50. 158.

Beecher (15)

(see under gold)

Belcher (176)

(see under copper)

Bertha M. (173)

Loc: Sec. 26, (34-40E), Chewelah dist. **Prop:** 3 unpatented claims. **Owner:** C. L. Miles, Spokane, Wash. (1941). **Ore:** Lead, silver, gold. **Deposit:** Quartz vein about 2 ft. wide in quartzite and schist. **Dev:** 15-ft. shaft and short crosscut. **Ref:** 30, p. 36.

Big Chief (Tenderfoot, Royal, Silver Key) (133)

Loc: S½ sec. 14, (37-39E), on branch of Clugston Cr. **Elev:** 3,220 to 4,200 ft. **Access:** 15 mi. by road from railroad at Colville. **Prop:** 12 claims and a millsite: Big Chief Nos. 1 to 8, Spokane, Vindicator, Good Enough, Blue Grouse. **Owner:** Clugston Creek Mining Co. leasing to Silverton Mines, Inc. (1954—). Big Chief Mining & Milling Co. (1926). Silver Chief Mining Co. (1929-1932). Silver Key Mines Corp. (1935). Crater Mining Co., Spokane, Wash. (1949-1951). **Ore:** Lead, silver, zinc. **Ore min:** Galena, sphalerite, pyrite, cerussite, limonite. **Deposit:** Ore minerals occur as nodules and stringers along zones of fracture and brecciation in limestone. Also 3 quartz veins in limestone carrying ore minerals. **Dev:** 2,500-ft., 700-ft., and 450-ft. adits, also 2 shafts, one 80, the other 20 ft. deep. **Assays:** Ore from shaft said to av. 14% Pb. Other ores said to assay high in Ag. Ore said to av. about \$30 per ton. **Prod:** 50 tons prior to 1940. **Ref:** 30, pp. 79-80. 46, pp. 49-50. 98, 1926, p. 1570. 104, 9/30/35, p. 24. 106, no. 22, 1925, p. 5; 10/1/29; 7/21/30; 8/24/30. 150, p. 30. 158. 164, pp. 237-239.

Black Canyon

Loc: Northport dist. **Owner:** President Mining Co., Northport, Wash. (1939). **Ore:** Lead, zinc, silver. **Ref:** 57, pp. 7, 54.

Black Cat (94)

Loc: Sec. 8, (39-42E), 2 mi. W. of Electric Point property, Northport dist. **Access:** Some distance from road. **Prop:** 4 claims: Boot Jack, Crow, Humming Bird, Black Cat. **Owner:** Abandoned (1941). **Ore:** Lead. **Ore min:** Galena, cerussite,

limonite. **Gangue:** Quartz. **Deposit:** Ores replace limestone at fracture intersections. **Dev:** 25-ft. shaft. **Ref:** 30, p. 93. 164, p. 309.

Black Rock (58)
(see under zinc)

Black Witch
(see Alma under silver)

Bland

Loc: Near Cleveland mine, Deer Trail dist. **Ore:** Lead, copper, silver. **Ref:** 63, p. 114.

Bliss
(see Galena Hill)

Blue Lime (Sauvola) (96)

Loc: NW¼NE¼ sec. 18, (39-42E), Northport dist. **Elev:** 3,800 to 4,200 ft. **Access:** 4 mi. by road from Leadpoint. **Prop:** 1 claim: Blue Lime. **Owner:** Walter L. Sauvola and associates (1949). **Ore:** Lead. **Deposit:** Lead ore said to occur as chimneys. **Dev:** 50-ft. shaft. **Ref:** 25, p. 6. 30, p. 94.

Blue Ridge
(see Sierra Zinc under zinc)

Blue Star
(see Eagle under silver)

Bluegrouse (155)
(see under silver)

Bonanza (148)

Loc: Secs. 2 and 11, (37-38E), 5 mi. SE. of Bossburg. **Elev:** 2,200 ft. **Access:** ½ mi. by truck road from Echo Valley road. **Prop:** 60 acres of patented land. **Owner:** Bonanza Lead, Colville, Wash. (1946—). Deer Trail Consolidated Mining Co. (1902-1924). Bonanza Mining Co. (1929-1930). Northern Lead Mining & Milling Co. (1930-1931). Russell Parker (1942). George Vervacke (1943). Anaconda Copper Mining Co., Butte, Mont. (1951-1952). **Ore:** Lead, silver, zinc, copper. **Ore min:** Steel galena, pyrite, sphalerite. **Gangue:** Quartz, siderite. **Deposit:** Lenticular deposit along a shear zone in chlorite and graphite schist. Ore occurs as irregular stringers in the zone. Zone as much as 4 ft. wide. New ore body 27 ft. thick discovered in 1950. **Dev:** More than 15,000 ft. of underground workings. **Improv:** 100-ton flotation mill at Palmers (1955). **Assays:** Ore said to contain 22% Pb, 30% Fe, 2.7% SiO₂, 10.5% S, 4.7 oz. Ag. **Prod:** 1906-1908, 1910-1911, 1914, 1916, 1923-1924, 1929-1930, 120 tons 1923. 2,000 tons prior to 1890. \$40,000 prior to 1944 reported. \$2,000,000 from 1944 to 1950. 1949 (14,163 tons ore). 1950 (20,000 tons ore). 1951 (13,700 tons ore). 1952-1954. **Ref:** 7, pp. 63-64. 12, pp. 26, 76. 13, p. 121. 30, p. 82. 63, pp. 112-113. 73, pp. 118-120. 88, p. 7. 97, 1907, 1908, 1911, 1912, 1915, 1917, 1923, 1924, 1929, 1930, 1942-1952. 106, 6/5/30, p. 19; 8/7/30, p. 20; 11/19/31. 129, pp. 117-119. 133, p. 31. 141, pp. 21, 22. 158. 164, pp. 174-176.

Botts (138)

Loc: Secs. 3 and 10, (37-39E), on E. side of Clugston Cr. near its head, Northport dist. **Elev:** 3,200 to 3,350 ft. **Access:** Near road. **Prop:** 3 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver. **Ore min:** Argentiferous galena. **Gangue:** Quartz. **Deposit:** Ore and quartz occur as small nodules and irregular shapes replacing limestone along zones of fracture. **Dev:** Several short adits, open cuts, and shallow shafts, total about 60 ft. **Ref:** 30, p. 84. 164, p. 242.

Boucher
(see Wildcat)

Boundary Silver Lead
(see Lucile under zinc)

Brooks (207)
(see under silver)

Bruce Creek
(see A and C under copper)

W. J. Bryan
(see Bechtol)

Buck Mountain
(see under silver)

Buffalo (73)
(see under silver)

Bullion (33)

Loc: Sec. 8, (39-39E), on hill overlooking Rattlesnake Valley. **Elev:** 3,800 ft. **Access:** 8 mi. W. of Northport. **Prop:** 7 claims. **Owner:** S. M. Kaemmerling, Philadelphia, Pa. (1942). Bullion Mining Co. (1902). **Ore:** Lead, silver, gold, copper, zinc. **Ore min:** Galena, sphalerite, chalcopryrite, bornite. **Deposit:** Said to be 50- to 80-ft. quartz veins cutting argillite and schist. **Dev:** Shaft, reportedly 160 ft. deep, from which drifts of 80 and 100 ft. have been driven. **Assays:** Conc. av. 70% Pb, 40 oz. Ag, \$2 Au. **Prod:** Small shipment in 1924. **Ref:** 88, pp. 5-6. 97, 1925, p. 561. 164, p. 255.

Burrus (119)
(see under zinc)

Cast Steel (52)

Loc: Sec. 10, (39-40E), Northport dist. **Access:** Road. **Prop:** 2 patented claims. **Owner:** Judge Carey estate (1941). **Ore:** Lead, silver. **Deposit:** Quartz vein said to av. 4 ft. in width and to be traceable for 400 ft. on the surface. **Dev:** 400-ft. vertical shaft, 400-ft. inclined shaft. Both caved. **Prod:** Reportedly some ore shipped prior to 1941. **Ref:** 30, pp. 96-97.

Cedar Canyon
(see under silver)

Center Star (130)
(see under silver)

Chewelah Consolidated (172)

Loc: N. part sec. 25, (34-40E), on a branch of N. Fk. of Chewelah Cr. **Access:** 12 mi. due N. of Chewelah. **Prop:** 4 claims. **Owner:** Bean and Stolp Lumber Co. (1941). German Silver and Gold Mining Co. (1908). **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, chalcopryrite, pyrite, arsenopyrite. **Deposit:** Metamorphic series of schist, conglomerate, quartzite, and greenstone cut by veins of quartz. One vein 6 ft. wide. **Dev:** 200-ft. adit, 125-ft. shaft, and other shallow shafts, short adits, and open cuts. **Assays:** One vein said to assay \$51 Au. **Ref:** 30, p. 36. 116, no. 6, 1908, p. 123. 164, pp. 162-163.

Chewelah Eagle
(see Eagle under silver)

Chewelah Silver
(see Fred B.)

Chloride (198)

Loc: Near S. ¼ cor. sec. 7, (30-37E), 100 ft. W. of the highway, Cedar Canyon dist. **Access:** 1 mi. S. of Hunters on Hunters-Fruitland highway. **Owner:** Mr. Isaacson (1939). **Ore:** Lead, silver. **Ore min:** Pyrite, arsenopyrite, galena. **Gangue:** Calcite. **Deposit:** A 2-ft. quartz vein in argillite carries pyrite, arsenopyrite, and galena. Pyrite also occurs along fractures in the argillite. **Dev:** 100-ft. adit, open cuts, several shafts, 50-ft. adit. **Ref:** 158.

Chloride Queen (Colville Queen) (131)

Loc: E½ sec. 23 and W½ sec. 24, (37-39E), on one of E. branches of Clugston Cr. **Elev:** 3,400 to 3,515 ft. **Access:** 1

mi. E. of Clugston Cr. highway by road. 15 mi. from railroad at Colville. **Prop:** 4 unpatented claims. **Owner:** Clugston Creek Mining Co., Spokane, Wash., leasing from Colville Queen Mining Co. (1949-1951). Chloride Queen Mining Co. (1920-1926). Mohawk Consolidated Mining & Smelting Co. (1930). Union Mining & Smelting Co. (1930). Colville Queen Mining Co. (1937-1951). **Ore:** Lead, silver, zinc, copper, iron. **Ore min:** Galena, cerussite, chalcopryite, sphalerite, limonite, pyrite. **Gangue:** Quartz, siderite. **Deposit:** 5-ft. quartz vein along contact of quartzite and dolomite. Lead-silver ore also found in a silicified breccia zone in dolomite. Limonite ore occurs in the dolomite. **Dev:** 350-ft. adit in which are drifts, shafts, and stopes, a longer adit at lower elevation, and surface workings said to total 2,000 ft. **Assays:** 34.3% Pb, 14 oz. Ag. Some limonite ore assayed \$13 Ag, Pb. Ore from stope said to assay 18% to 20% Zn, 3% Cu, 16% Pb, 3 oz. Ag. **Prod:** 400 tons of limonite ore shipped to Colville smelter in early days. Lead ore shipped in 1900, 1914, 1925, 1928. **Ref:** 12, p. 81. 13, p. 126. 30, p. 79. 46, pp. 43-45. 48, p. 19. 73, pp. 113-115. 97, 1926, p. 469; 1929, p. 429. 98, 1922-1925. 104, 2/28/37, p. 28. 105, no. 124, 1922, p. 381. 106, no. 15, 1921, p. 8; no. 23, 1923, p. 5; 5/1/30, p. 20; 9/4/30. 113, 2/4/37, p. 6. 117, no. 9, 1922, p. 7; no. 16, 1922, p. 7. 142, pp. 46-47. 158. 164, pp. 235-237.

Cholett

(see under zinc)

City View (151)

(see under gold)

Cleveland (Santa Rita) (195)

Loc: Secs. 3, 4, 9, and 10, (30-38E), at head of Hunters Cr., Deer Trail dist. **Elev:** 3,400 ft. **Access:** 10 mi. E. of Hunters by road. 25 mi. to railroad at Springdale. **Prop:** 12 patented claims and 1 fraction. **Owner:** Stewart Compton, Bayview, Idaho, leasing to Frank Marr, Spokane, Wash. (1952). F. R. Tinsby and W. L. Falter (1892). Cleveland Mining & Milling Co. (1917). Sharp Mining Co. (1918). Santa Rita Mining Co. (1918, 1922-1926). Cleveland Mining Co. (1920-1922). Base Metals, Inc. (1950). Leased by Spokane-Idaho Mining Co. (1951). **Ore:** Lead, zinc, silver, antimony. **Ore min:** Sphalerite, galena, tetrahedrite, boulangerite, stibnite, arsenopyrite, pyrite, cerussite, anglesite. **Gangue:** Calcite, siderite, quartz. **Deposit:** Series of argillite, quartzite, and dolomite cut by basic dikes is the country rock. Lenses of ore lie along parallel brecciated zones in the dolomite. Richest ore from surface down to 100-ft. depth. **Dev:** Adit with several hundred ft. of drifts and cross-cuts, 200-ft. inclined shaft, with a 250-ft. drift, 50-ft. shaft, other short adits and shafts. **Assays:** 4,000 tons produced in 1942 said to av. 6% Pb, 6% Zn. Weighted av. of 6 samples from av. width of 11 ft. showed 6.85% Pb, 3.07% Zn, 1.03% Sb, 3.77 oz. Ag. **Prod:** 1,500 tons prior to 1897. 1910, 1917, 1921-1924, 1937-1939, 1942-1944, 1947. **Ref:** 30, p. 74. 46, pp. 91-96. 63, p. 114. 68, p. 6. 73, pp. 127-132. 97, 1911, 1918, 1922-1925, 1938-1940. 98, 1918-1926. 100, 1899, p. 210. 104, 1/15/37. 106, no. 12, 1918. 112, p. 173. 132, pp. 137-141. 133, p. 32. 141, pp. 21, 22, 43. 157. 158. 164, pp. 205-209.

Clugston

(see Silver Trail)

Coffer (25)

(see under copper)

Columbia

(see Iroquois under zinc)

Colville Queen

(see Chloride Queen)

Comstock (10)

(see under copper)

Comstock (Abe Lincoln) (36)

Loc: Sec. 6, (40-39E), on W. slope of Sophia Mtn. near international boundary. **Access:** 15 mi. by road to railroad at Northport. **Prop:** 5 unpatented claims. **Owner:** John and Elmer Godfrey, Northport, Wash. (1941). **Ore:** Lead, zinc, silver, gold. **Ore min:** Pyrite. **Gangue:** Quartz. **Deposit:** Said to be a vein 3 ft. or more wide and 6,000 ft. long. **Dev:** 350-ft. adit, 50-ft. shaft. **Assays:** 7% Pb, 7% Zn, 2 oz. Ag, 0.10 oz. Au. **Ref:** 30, p. 111. 46, p. 87. 158.

Contention

(see Mountain View under silver)

Copper-Gold

(see Coffer under copper)

Copper King (113)

Loc: Sec. 20, (38-41E). **Elev:** 2,500 ft. **Access:** 15 mi. by road from railroad at Northport. **Prop:** 3 claims. **Owner:** Charles Clarke, A. E. Wilkerson, C. L. Baker, Spokane, Wash. (1941-1951). Lew Towner (1910). **Ore:** Lead, zinc, gold, iron. **Ore min:** Galena, sphalerite, pyrite, pyrrhotite. **Deposit:** Quartz veins in limestone near granite contact. Also some low-grade disseminated sphalerite and galena in limestone. **Dev:** 90-ft. shaft with a 40-ft. crosscut, a 200-ft. adit, 17 diamond drill holes from the crosscut at bottom of shaft reported. 4 of these holes reported to have cut 14-ft. vein containing tetrahedrite. **Prod:** Several shipments reported sent to Northport smelter for flux. **Ref:** 30, p. 90. 111, p. 8. 157. 158.

Copper King (88)

Loc: NE. cor sec. 25, (40-41E), Northport dist. **Elev:** 3,400 to 3,700 ft. **Access:** 1½ mi. from Deep Cr. road on Red Top Mtn. road. **Prop:** 2 claims: Copper King Nos. 1 and 2. **Owner:** Red Top Mining Co., Spokane, Wash. (1941). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite, tetrahedrite. **Gangue:** Quartz. **Deposit:** Ore occurs along contact of limestone and an intrusive dike. Also a 6- to 7-in. quartz vein in limestone. Bands of galena and sphalerite 4 to 10 in. wide. **Dev:** 285-ft. adit, 20-ft. shaft, 221-ft. adit. **Prod:** Has produced. **Ref:** 7, pp. 57-58. 30, p. 107. 46, pp. 76-77. 73, p. 102. 116, no. 3, 1908, p. 102. 158. 164, pp. 299-300.

Copper Queen (177)

(see under copper)

Coyote (Rightside)

(see Rightside under copper)

Coyote (Coyotte) (40)

Loc: Sec. 26 or 23, (40-39E). **Access:** 2 mi. W. to railroad at Northport. **Prop:** 3 patented claims. **Owner:** T. T. Richardson, Northport, Wash. (1941). **Ore:** Lead, silver, zinc, gold. **Ore min:** Argentiferous galena. **Gangue:** Quartz. **Deposit:** Argillite and limestone intruded by granite. A 2-ft. mineralized zone parallels the bedding in argillite. **Dev:** Shaft with 20-ft. drift at 20-ft. level, considerable trenching and open cut work. **Assays:** Said to run \$30 to \$60 per ton. **Prod:** Some lead-silver ore shipped 1915-1916. **Ref:** 30, p. 91. 46, p. 64. 63, p. 108. 97, 1916, p. 616; 1917, p. 506. 158. 164, p. 313.

Coyotte

(see Coyote)

Crackerjack (139)

Loc: Secs. 3 and 10, (37-39E), Colville dist. **Access:** 12 mi. N. of Colville by road. **Ore:** Lead. **Ref:** 158.

Crystal (101)

Loc: Secs. 7 and 18, (39-42E), Northport dist. **Owner:** W. L. Clearwaters, Millwood, Wash., lessee (1949). **Ore:** Lead. **Ref:** 68, p. 7.

Daisy

(see Daisy-Tempest under silver)

Daisy-Tempest (165)

(see under silver)

Dead Medicine

(see Silver Trail)

Deep Creek (57)

(see under zinc)

Deep Lake

(see Farmer under zinc)

Deer Trail (205)

(see under silver)

Defender (22)

(see under zinc)

Delmonico

(see Jay Dee under silver)

Dome

(see Avondale-Dome)

Dora

(see Acme)

Double Eagle (192)

Loc: SE¼ sec. 18, (31-39E), Chewelah dist. **Elev:** 4,400 ft. **Access:** Road. **Prop:** 4 claims: Wilson, Wilson No. 2, Marshall, Marshall No. 2. Also 200 acres of deeded land. **Owner:** Mike Kulzer, Valley, Wash. (1941). Double Eagle Mining Co. (1916-1926). Roy Dahl and associates (1939). Duke of Windsor Mines Corp. (1941). **Ore:** Lead, silver, copper. **Ore min:** Galena, pyrite, chalcopryrite. **Gangue:** Breccia, gouge, magnesite. **Deposit:** Slip zones in argillite, siliceous limestone, and quartzite are mineralized by pyrite. Loose boulders of solid ore on surface. Source undetermined. **Dev:** 750-ft. adit, 300-ft. adit, one other adit, and a shaft aggregate 2,200 ft. **Assays:** 3 truckloads of ore av. 70 oz. Ag, 22% Pb. **Prod:** 1916, 1939 (Early production was from boulders in surface mantle). **Ref:** 30, pp. 36-37. 97, 1916, p. 616; 1940, p. 480. 98, 1920-1926. 112, p. 176. 158. 164, pp. 179-180.

Double Standard (37)

(see under copper)

E. M. C. (158)

(see also Ark under silver)

Loc: Secs. 11 and 12, (35-37E), across canyon N. of the Silver Queen property, Kettle Falls dist. **Elev:** 2,000 ft. **Prop:** Several unpatented claims, now part of the Ark group. **Ore:** Lead, copper, silver. **Ore min:** Galena and a little chalcopryrite. **Deposit:** Quartz vein in argillite and limestone. **Dev:** Adit at least 50 ft. long, 35-ft. shaft. **Ref:** 30, p. 59. 58, p. 19. 164, p. 225.

Eagle (180)

(see under silver)

Eagle-Newport

(see Aguila)

Easter Sunday (20)

(see under gold)

Easy Money

(see Magma under zinc)

Echo (134)

(see under zinc)

Eldorado (87)

Loc: Sec. 24, (40-41E), Northport dist. **Access:** ½ mi. from road. **Prop:** 2 unpatented claims. **Owner:** Elmer Owens, Northport, Wash. **Ore:** Lead, silver. **Deposit:** A small pocket of ore about 12 in across in a fracture zone. **Dev:** 100-ft. adit, 150-ft. adit. **Ref:** 30, p. 108.

Eldorado (Magma)

(see Magma under zinc)

Electric Point (106)

(see also Lucky Four under silver)

Loc: Extends across the intersection of secs. 17, 18, 19, and 20, (39-42E), Northport dist. **Elev:** 3,000 to 4,700 ft. **Access:** 4 mi. by road from Leadpoint. **Prop:** 9 unpatented claims, including Lucky Four. **Owner:** Northwest Mining Syndicate, Spokane, Wash. (1955—). Electric Point Mining Co. (1917-1936). Arthur Simonson (1939-1943). A. G. Lotze (1944). Leadpoint Electric Mining Co. (1950). The State Mining Co. leasing from Mrs. N. I. Simonson, Colville, Wash. (1951). Northwest Mining Syndicate (1952). The State Mining Co. (1953). **Ore:** Lead, with minor amounts of silver, zinc, copper. **Ore min:** Galena, cerussite, anglesite, pyromorphite, limonite. **Gangue:** Siderite, clay, sand, brecciated dolomite. **Deposit:** Replacement bodies in limestone known as chimneys at brecciated intersections of two or more sets of fissures. Largest chimney had a depth of 800 ft. and a dia. of 150 ft. Most are 300 ft. or less deep and 100 ft. or less in dia. **Dev:** 10,000 ft. of drifts and crosscuts and several thousand ft. of shafts. Trenching by U. S. Bureau of Mines. **Assays:** 0.1% to 1.30% Pb, 0.1% to 1.90% Zn. A 4½-ton shipment in 1952 assayed 73.4% Pb, 3 oz. Ag. **Prod:** All years from 1901 to 1955 except 1921, 1923-1924, 1943, 1945-1946. Total to 1952 was 6,950 oz. Ag, 1,143 lb. Cu, 30,260,297 lb. Pb. **Ref:** 1, vol. 21, p. 62. 25. 30, p. 93. 73, pp. 85-90. 97, 1916-1920, 1925, 1926, 1928-1931, 1934-1952. 98, 1918-1926. 102, 1916, pp. 991-992. 104, 8/15/35, p. 26; 4/15/37, p. 35. 105, 1915, p. 647. 106, no. 1, 1917, p. 14; no. 18, 1918, pp. 4-5; no. 1, 1919, p. 4; no. 1, 1920, p. 50; 12/3/21, p. 11; 3/16/33. 108, 2/42, p. 38. 112, p. 177. 129, pp. 93-102. 130, p. 72. 141, pp. 21, 22, 43. 150, p. 39. 158. 164, pp. 306-307.

Elk (97)

Loc: Sec. 17, (39-42E), Northport dist. **Access:** Near road. **Prop:** 5 unpatented claims. **Owner:** R. Boucher and D. Boucher, Colville, Wash. (1941). **Ore:** Lead. **Deposit:** Lead chimneys in limestone. **Dev:** 4 shafts, 30 to 50 ft. deep, and a number of surface cuts. **Ref:** 30, p. 106.

Elvick (39)

(see under gold)

Emerald

Loc: Northport dist. **Ore:** Lead, zinc. **Prod:** 1926. **Ref:** 97, 1926, p. 470.

Empire (59)

(see under zinc)

Enterprise

(see Jay Dee under silver)

Eureka (4)

(see under gold)

Eureka (Uncle Sam)

(see Uncle Sam)

Eureka and Orient

(see Eureka under gold)

Evergreen (77)

Loc: Sec. 25, (40-42E), on S. slope of Red Top Mtn., Northport dist. **Elev:** 3,275 to 3,700 ft. **Access:** 5 mi. by road from railroad at Boundary. **Prop:** 5 claims including the Evergreen and Olympia. **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite, cerussite, limonite, pyrite. **Deposit:** Several quartz veins along fracture zones in limestone and argillite. A 16-in. vein lies along the contact of the two rocks. **Dev:** 145-ft. adit, 177-ft. adit, 100-ft. shaft, 90-ft. shaft, several other shallow shafts and open cuts. **Prod:** Reportedly 25 tons of ore shipped in 1902. **Ref:** 46, pp. 55-56. 164, pp. 301-303.

Excelsior

Loc: Near Silver Crown property, Northport dist. **Access:** Near railroad. **Owner:** J. H. Young & Co. (1892). **Ore:** Lead, silver. **Ore min:** Galena, pyrite. **Deposit:** 2-ft. vein. **Dev:** 80-ft. adit. **Assays:** Ore from dump assayed 50% Pb, 118 oz. Ag. **Ref:** 12, p. 76. 13, p. 122.

Farmer (111)

(see under zinc)

Finley

Loc: 8 mi. NW. of Chewelah. **Access:** On railroad. **Prop:** 1 claim. **Owner:** W. H. Fife, J. M. Buckley, W. E. Sullivan (1892). **Ore:** Lead, silver, copper. **Ore min:** Galena, chalcopryrite, pyrite. **Deposit:** 3-ft. quartz vein. **Dev:** 75-ft. inclined shaft. **Assays:** Ore shipped yielded 20% Pb, 90 oz. Ag. **Prod:** Ore shipped to a Montana smelter prior to 1890. **Ref:** 12, p. 80. 13, p. 125.

Fish (159)

(see under silver)

Flannigan

(see Iroquois under zinc)

Flat Creek (32)

(see under zinc)

Fred B. (Chewelah Silver, Nabob) (184)

(see also Jay Gould under silver)

Loc: Sec. 9, (32-41E), N. of Nabob property, Chewelah dist. **Access:** ¼ mi. from road. **Prop:** 2 claims and 40 acres of deeded land. Now part of Jay Gould group. **Owner:** O. C. Niles, Chewelah, Wash. (1941). Chewelah Silver Mining Co. (1920-1935). **Ore:** Lead, silver. **Ore min:** Galena, pyrite, chalcopryrite, pyrrhotite. **Deposit:** 1-ft. quartz vein in quartzite carries some galena and pyrite. Country rock slightly mineralized for 4 ft. on each side of the vein. Near granite. **Dev:** 60-ft. shaft, open cut. **Ref:** 30, pp. 35, 40. 98, 1922-1925. 104, 7/15/35, p. 26. 164, p. 159.

Frisco Standard (72)

(see under silver)

Galena Farm (Galena Ridge) (128)

Loc: NE¼ sec. 7, (37-40E), on headwaters of Onion Cr., Northport dist. **Elev:** 4,700 ft. **Access:** Road. **Prop:** 6 unpatented claims. **Owner:** Clarence Culler and Elmer Mullen, Chewelah, Wash. (1949). Galena Farm Mining Co. (1918-1924). Radio Silver Lead Mining Co. (1926). **Ore:** Lead, silver, gold. **Ore min:** Argentiferous galena, pyrite, chalcopryrite, tetrahedrite. **Gangue:** Quartz, calcite. **Deposit:** Ore minerals occur in lenses of quartz and calcite in a shear zone in argillite and dolomite. **Dev:** 300-ft. adit, inclined shaft, vertical shaft, numerous open cuts. **Assays:** Said to carry 9 oz. Ag, \$2 to \$10 Au. **Ref:** 30, p. 112. 68, p. 8. 98, 1918-1926. 112, p. 179. 164, pp. 245-246.

Galena Hill (30)

Loc: Sec. 22, (39-38E), Orient dist. **Ore:** Lead. **Ore min:** Galena. **Gangue:** Quartz. **Deposit:** Argillite and limestone cut by basic dikes. Outcrops of quartz associated with the basic dikes or along the contact of the dikes and argillite carry galena. **Dev:** Several shafts and open cuts. **Ref:** 164, p. 255.

Galena Hill (Kettle River, Bliss) (17)

Loc: Near center sec. 35, (40-36E), on E. bank of Kettle R., Orient dist. **Elev:** 1,500 to 1,900 ft. **Access:** 1 mi. by road from railroad at Rockcut. **Prop:** 5 claims and 1 fraction. **Owner:** Walter S. Bliss, Orient, Wash. (1952). Galena Hill Mining Co. (1915-1924). **Ore:** Lead, zinc, silver, copper. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite. **Gangue:** Quartz, calcite, dolomite. **Deposit:** Several small veins in schist near contact with diorite. One vein 6 in. to 8 ft. wide. Ore minerals occur as small pockets and stringers 4 in. and less in width. **Dev:** 300-ft. shaft from which there are 2 crosscuts, one 170 ft., the other 76 ft. long. Also 300 ft. of drifts. **Prod:** 1 car of conc. shipped in 1911. **Ref:** 7, pp. 85-87. 46, pp. 100-102. 97, 1913, p. 801. 98, 1922, p. 1647; 1925, p. 1817. 105, no. 23, 1914, p. 947. 129, pp. 162-163. 133, p. 36. 158. 164, pp. 287-288.

Galena Knob (126)

Loc: NE¼ sec. 21, (37-40E), on top of hill, Northport dist. **Elev:** 3,850 ft. **Access:** 4½ mi. by road from the Colville-Aladdin highway, and 16½ mi. by road from railroad at Colville. **Prop:** 160 acres of deeded land. **Owner:** W. Lon Johnson, Colville, Wash. (1944-1951). Leased by Roy Davidson and Lee Wood (1950—). **Ore:** Lead, silver. **Ore min:** Galena, cerussite, lead oxides. **Gangue:** Limestone breccia, quartz. **Deposit:** Brecciated limestone covers most of the hill. Mineralized breccia zone exposed is 4 ft. wide and is about 30% galena. The ore bodies are in quartz veins containing narrow branching veinlets and irregular pockets of galena. **Dev:** 50-ft. adit, 200-ft. shaft, open cuts, 2 old shafts. **Assays:** High-grade specimen showed 63.2% Pb, 0.03% Zn, 1.8 oz. Ag. **Prod:** 50 tons sorted ore from development work stored at property (1950). **Ref:** 30, p. 104. 69, p. 8. 157. 158.

Galena Ridge

(see Galena Farm)

Georgic (26)

(see under copper)

Germania (214)

(see under tungsten)

Giant Silver

(see Red Cloud under copper)

Gillete

(see Avondale-Dome)

Gladstone (107)

Loc: Secs. 17, 18, and 19, (39-42E), Northport dist. **Elev:** 3,500 to 4,700 ft. **Access:** 14 mi. by road to railroad at Boundary. **Prop:** Several unpatented claims, 5 patented claims: Lone Star, Moonlight, Setting Sun, Silver Bell, Silver Bell Fraction. **Owner:** Gladstone Mountain Mining Co., Spokane, Wash. (1918—), leasing to A. G. Lotze, Boundary, Wash. (1953—). **Ore:** Lead, silver, zinc, copper. **Ore min:** Galena, cerussite, anglesite, pyromorphite, limonite. **Gangue:** Clay, sand, dolomite breccia. **Deposit:** Chimney-type limestone replacements at brecciated intersections of two or more sets of fissures. Remnants of galena and cerussite imbedded in gangue. Most chimneys 10 to 15 ft. in dia. and 100 ft. deep. **Dev:** 4,000 ft. of old workings. New shaft 80 ft. deep. Trenching by U. S. Bureau of Mines. **Assays:** Much ore produced ran 50% or more Pb. Some samples assayed by U. S. Bureau of Mines

assayed as high as 7% Pb, 1.84% Zn. **Prod:** Every year (except 1945-1946) from 1901 to 1955. Total to 1953, 9,274 oz. Ag, 835 lb. Cu, 14,793,421 lb. Pb, 41,357 lb. Zn. **Ref:** 22, p. 6. 25. 30, p. 94. 73, pp. 90-94. 97, 1917, 1922-1926, 1928, 1930, 1931, 1934, 1935, 1937, 1938, 1940. 98, 1918-1926. 104, 12/15/34, p. 22; 7/30/35, p. 24; 4/15/37, p. 35. 106, no. 1, 1920, p. 50; no. 9, 1920, p. 2; no. 20, 1922, p. 2; 3/3/32; 9/15/32; 9/7/33. 112, p. 180. 129, pp. 102-104. 141, pp. 21, 22, 43. 150, p. 31. 158. 164, pp. 307-308.

Globe (24)

(see under copper)

Gold Bar (149)

(see under gold)

Gold Hill

(see under gold)

Good Enough

(see Sandiego under silver)

Gorien Zinc

(see under zinc)

Gray Eagle

(see Rightside under copper)

Great Northern (99)

Loc: Secs. 12 and 13, (39-41E), Northport dist. **Access:** 2½ mi. from Leadpoint on road to Gladstone mine. **Owner:** Wm. McCue. **Ore:** Lead. **Ref:** 158.

Great Republic (38)

(see under copper)

Great Western (62)

Loc: SW¼SW¼ sec. 24, (39-40E). Joins Last Chance property on N. **Elev:** 3,120 ft. **Access:** 6 mi. by road from railroad at Northport. **Prop:** 2 patented claims: Great Western, Empire. **Owner:** Sylvia K. Lemna, Long Beach, Calif. (1953). Last Chance Consolidated Mines, Inc., Spokane, Wash. (1948-1952). Norman Mines Co. (1915-1920). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite, smithsonite, cerussite. **Gangue:** Silicified limestone. **Deposit:** Ore is in pre-mineral faults in fine-grained marble along which are limonite seams from 0 to 18 in. wide, containing locally up to 50% galena as rich lenses. Known length of the mineralized fault zone is 1,000 ft. **Dev:** 1,000 ft. of adits and about 200 ft. in 3 shafts. **Assays:** One carload returned 16.4% Pb, 28.2% Zn. **Prod:** \$40,000 prior to 1917. **Ref:** 30, pp. 98-99. 46, p. 54. 73, pp. 106, 107. 97, 1916, 1925, 1926, 1928, 1929. 98, 1918, p. 1469; 1920, p. 1499. 105, 1916, p. 27. 130, p. 91. 133, p. 36. 158. 164, p. 311.

Grubstake

(see under silver)

H & B

(see Aichan Bee under silver)

Ham (Steel Galena, Iron Cap) (166)

Loc: NW¼NW¼ sec. 32, (34-39E). **Access:** 8 mi. by road to railroad at Addy. **Prop:** 40 acres of State-owned land. **Owner:** Leased by H. A. Ham, Colville, Wash. (1942). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Several large galena boulders found in glacial drift. One boulder reportedly produced 12 tons of ore. No vein has been discovered in the vicinity. **Dev:** About 600 ft. of adits, and pits mostly in glacial drift. **Assays:** 25% to 40% Pb, 4 to 22 oz. Ag, tr. to \$4.00 Au. **Prod:** Several boulders totaling about 15 tons of ore were shipped in 1890. **Ref:** 30, p. 53. 58, p. 65. 158.

Hartbauer (89)

Loc: Sec. 25, (40-41E), Northport dist. **Access:** Near road. **Prop:** 40 acres of deeded land. **Owner:** Konrad Hartbauer,

Northport, Wash. (1941). **Ore:** Lead, silver, zinc. **Deposit:** Mineralized fracture zone with a max. width of 2 ft. **Dev:** 70-ft. adit, 2 open cuts. **Ref:** 30, p. 101.

Hartford

(see Krug under copper)

Hazel (81)

(see under silver)

Helena Johnson (60)

Loc: Sec. 24, (39-40E), on Deep Cr., Northport dist. **Access:** Road. **Prop:** 1 claim. **Owner:** Under lease to Telford I. Moore and Firmer Walkely (1941). **Ore:** Lead, zinc, silver. **Dev:** Adit. **Ref:** 30, p. 110. 46, p. 71.

Hi Cliff

(see Uncle Sam)

High Grade

(see Jay Dee under silver)

Highland (75)

Loc: Sec. 15, (40-42E), Northport dist. **Access:** ½ mi. from road. **Prop:** 2 unpatented claims: Highland Nos. 1 and 2. **Owner:** Charles Maki and R. Gezelius, Northport, Wash. (1941). **Ore:** Lead, zinc, silver, gold. **Deposit:** Quartz vein said to be 20 to 25 ft. wide and traceable for 1,400 ft. on the surface. **Dev:** 40-ft. shaft, 25-ft. shaft, 15-ft. adit. **Ref:** 30, p. 103.

Highland Chief

Loc: At head of Oropathan Cr., Cedar Canyon dist. **Ore:** Silver, copper. **Ref:** 63, p. 115.

Homebuilder (31)

Loc: Sec. 9, (39-38E), Orient dist. **Access:** Near road. **Prop:** 3 unpatented claims. **Owner:** Louis Larson, Northport, Wash. (1941). **Ore:** Lead, silver. **Deposit:** Mineralized quartz vein 4 to 12 in. wide. **Dev:** 100 ft. of work in an adit and a shaft. **Ref:** 30, p. 136.

Homestake (28)

(see under gold)

Honest John (191)

(see under silver)

Hoodoo (206)

(see under silver)

Hubbard (Royal Gold) (34)

Loc: E½ sec. 32, (40-39E), on top of peak at head of Squaw Cr. **Elev:** 4,000+ ft. **Access:** 10 mi. W. of railroad at Northport, on Forest Service road. **Prop:** 5 unpatented claims. **Owner:** Mines Management, Inc. (1949). Hubbard Mining Corp., Colville, Wash. (1945). Bruder Mining Co. **Ore:** Lead, zinc, silver, gold, copper. **Ore min:** Galena, sphalerite, tetrahedrite, pyrite, chalcophyrite. **Deposit:** Sulfides concentrated in small bunches in quartz vein from 10 to 12 ft. wide in phyllite. Vein has been traced 1,500 ft. **Dev:** 275-ft. and 125-ft. adits, 2 shafts about 30 ft. deep. **Prod:** Reportedly 1 carload of ore shipped. **Ref:** 30, p. 107. 104, 6/30/37. 108, 4/49, p. 51. 111, p. 8.

Hunter

(see Jackson under zinc)

Ibex (53)

Loc: Sec. 7, (37-40E), N. of divide between Onion and Clugston Creeks, Northport dist. **Elev:** 4,700 ft. **Access:** Road. **Prop:** 4 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver. **Ore min:** Galena, said to be argentiferous. **Deposit:** 4-ft. quartz vein in limestone and argillite. **Dev:** 8-ft. shaft and another shallow shaft. **Ref:** 30, pp. 112-113. 164, p. 244.

Indian

(see Eureka under gold)

Iron Cap

(see Ham)

Iron Mask (14)

(see under zinc)

Iroquois (84)

(see under zinc)

Jackson (80)

(see under zinc)

Jay Dee (179)

(see under silver)

Jay Gould (182)

(see under silver)

Jayhawker (19)

(see under copper)

Joe Creek (125)

(see under zinc)

John Day (178)

(see under silver)

John Hays (163)

(see under silver)

Johnny Boy

(see Moonshine-Johnny Boy under silver)

Jupiter

(see Last Chance)

Just Time (Star) (76)

Loc: W. center sec. 15, (40-42E), Northport dist. **Elev:** 4,000 ft. **Access:** 1½ mi. from railroad at Boundary. **Prop:** 1 claim, known as Just Time or Star. **Owner:** Abandoned (1941). Herman and H. V. Rieper (1924). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite, pyrite. **Gangue:** Quartz, calcite. **Deposit:** Limestone breccia cemented by quartz and calcite is sparsely mineralized. **Dev:** Shaft and other old workings caved (1941). **Ref:** 30, p. 111. 46, p. 53. 73, p. 105. 128, p. 62.

Keough (74)

Loc: NE¼ sec. 14, (40-42E), 1 mi. S. of Frisco Standard property. **Owner:** Mr. Keough (1913). **Ore:** Lead, zinc, gold, copper. **Ore min:** Galena, sphalerite, tetrahedrite, reportedly free gold. **Deposit:** Slightly mineralized quartz lenses in dolomite near its contact with shale. **Dev:** Open cuts. **Ref:** 7, p. 59.

Kettle River

(see Galena Hill)

Keystone (98)

(see under iron)

King Tut

Loc: Northport dist. **Ore:** Lead, zinc. **Prod:** Small shipment in 1926. **Ref:** 97, 1926, p. 470.

Koyotte

(see Rightside under copper)

Krug (170)

(see under copper)

Lake View

(see Hazel under silver)

Lakeview

(see Roosevelt under silver)

Last Chance (Jupiter) (61)

Loc: SW¼SE¼ sec. 24, (39-40E), on E. side of Deep Cr., Northport dist. **Elev:** 2,690 ft. **Access:** 5 mi. by road from railroad at Northport. **Prop:** 3 patented claims and a millsite. **Owner:** Last Chance Consolidated Mines, Inc., Spokane, Wash. (1948—). Jupiter Lead Co. (1907-1926). Norman Mines Co. (1915-1916). **Ore:** Lead, zinc, silver. **Ore min:** Galena, cerussite, anglesite, sphalerite, pyrite, limonite. **Gangue:** Calcite, quartz. **Deposit:** Ore shoots in a mineralized shear zone in dolomite, especially at fracture intersections. Zone up to 5 ft. wide. **Dev:** 4 adits and several open cuts and trenches total more than 1,000 ft. **Improv:** 60-ton gravity-flotation mill (1950). **Assays:** Galena ore said to have av. 55% Pb without concentration. Low Zn values and only 1 oz. Ag per ton. **Prod:** \$600,000 up to 1937. 1 carload ore 1938. Small shipments of conc. 1947-1949. **Ref:** 7, pp. 54-56. 30, pp. 107-108. 46, pp. 88-90. 73, pp. 106-107. 97, 1905-1911, 1916, 1926. 98, 1918-1926. 108, 7/40, p. 34. 112, p. 185. 113, 6/3/37, p. 7. 130, p. 91. 133, p. 36. 158. 164, pp. 309-310.

Lead King (100)

Loc: Secs. 12 and 13, (39-41E), just S. of Lead Trust mine, Northport dist. **Elev:** 3,200 ft. **Access:** ¼ mi. from road. **Prop:** 3 claims: Lead King, Rex Nos. 1 and 2. **Owner:** Elmer Godfrey, Northport, Wash. (1941). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite, limonite, cerussite. **Gangue:** Aragonite, dolomite, gouge. **Deposit:** Galena and sphalerite occur as irregular replacement bodies in dolomite. A tight fracture cut by the adit varies from a few in. to 2 ft. in width and carries considerable galena. **Dev:** 326-ft. adit, open cuts. **Ref:** 30, pp. 102-103. 73, p. 96. 129, pp. 106-107. 158.

Lead Trust (93)

Loc: Sec. 7, (39-42E) and sec. 12, (39-41E). **Elev:** 3,000 ft. **Access:** 2½ mi. by road from Leadpoint. 14 mi. by road to railroad at Northport. **Prop:** 4 claims and 20 acres of deeded land. **Owner:** Ray Cater, Marlin, Wash., leasing to Felix J. Cardinal, Spokane, Wash. (1951-1954). Lead Trust Mining Co. (1910-1915). Lead Trust Mine, Inc. (1922-1926). **Ore:** Lead. **Ore min:** Galena, limonite, cerussite. **Gangue:** Dolomite, siderite. **Deposit:** Ore occurs as irregular bunches in brecciated limestone. Ore body in lower adit was from 16 to 24 in. wide. **Dev:** Glory hole, 216-ft. adit, 500-ft. adit, and 3 other adits comprise 2,000 ft. of workings. **Prod:** 1939. Occasional shipments prior to 1924 are said to have amounted to 30,000 tons of lead ore. **Ref:** 30, pp. 93-94. 73, pp. 94-96. 97, 1917, 1923, 1925, 1926, 1930, 1940. 98, 1920-1926. 129, pp. 104-106. 133, p. 36. 141, p. 22.

Leadhill

Loc: T. 40 N., R. 42 E., Northport dist. **Owner:** Chas. Bosstrom and Ivar W. Luhr. **Ore:** Lead. **Prod:** Has produced. **Ref:** 58, p. 38.

Leadville (137)

Loc: Secs. 3 and 10, (37-39E), Clugston Cr. area. **Access:** Road. **Prop:** 3 claims. **Owner:** Lead Trust Mines, Inc., Spokane, Wash. (1955—). **Ore:** Lead, silver. **Deposit:** Surface showings of lead and zinc high on mountain were not encountered in long adit. **Dev:** 1,250-ft. crosscut. **Ref:** 30, p. 80. 158.

Legal Tender (203)

(see under silver)

Leon C. (102)

Loc: Secs. 7 and 18, (39-42E) and secs. 12 and 13, (39-41E), Northport dist. **Access:** 14 mi. by road from railroad at Boundary. **Owner:** Wm. McCue. **Ore:** Lead. **Ref:** 158.

Little Frank (202)

Loc: NW¼ sec. 1, (29-37E). **Access:** 9½ mi. SE. of Fruitland by road. **Prop:** Fractional claim. **Owner:** Mr. Stiles, Fruitland, Wash. (1941). **Ore:** Lead, zinc, copper, silver. **Ore min:** Galena, sphalerite, tetrahedrite, malachite, limonite. **Deposit:** 12-in. quartz vein cutting limestone-shale series. **Dev:** 8- to 10-ft. crosscut and about 100 ft. of drifting. **Ref:** 7, p. 117. 30, p. 73.

Little Giant (6)

Loc: NW¼ sec. 30, (40-37E), Orient dist. **Elev:** 2,460 ft. **Access:** 2 mi. NE. of Rockcut and ¼ mi. E. of N. Fk. of Sand Cr. by road. **Prop:** 1 unpatented claim. **Owner:** George Bryant and Charles Taylor, Orient, Wash. (1941). Little Giant Mining Co. (1897). Domingo Mining, Milling, & Smelting Co. (1907-1918). **Ore:** Lead, copper, gold, silver. **Ore min:** Galena, pyrite, chalcopryite, bornite, copper carbonates. **Gangue:** Quartz, calcite, siderite, epidote. **Deposit:** Altered diorite, cut by a camptonite dike, is traversed by fracture zones greatly altered and mineralized to some extent. **Dev:** 160-ft. shaft from which 2 drifts have been driven, one 200 ft. long. Also shallow shafts, open cuts, and some diamond drill holes. **Assays:** One drill core assayed \$23, another \$10. **Prod:** Small shipments prior to 1913. **Ref:** 7, p. 87. 30, p. 125. 33, 1908, p. 632. 63, p. 106. 98, 1918, p. 80. 106, 7/16/31, p. 17; 7/21/32, p. 1. 114, no. 5, 1909, p. 60. 116, no. 4, 1907, p. 21. 164, p. 286.

Lone Star (46)

(see under silver)

Longshot (Newland, Pioneer) (122)

Loc: NW¼ sec. 18, (36-41E), Colville dist. **Elev:** 3,700 ft. **Access:** 6 mi. by dirt road to highway. 16 mi. to railroad at Colville. **Prop:** 3 claims. **Owner:** Robert Ferguson and George Watson, Spokane, Wash. (1942-1952), leasing to Pioneer Mining Co., Spokane, Wash. (1951—). **Ore:** Lead, zinc, silver, cadmium. **Ore min:** Galena, sphalerite, tetrahedrite, scheelite. **Gangue:** Limestone, tourmaline. **Deposit:** Mineralized zone about 20 ft. thick and 150 ft. long at base of limestone bed in Maitlen phyllite. **Dev:** Open cuts, 600-ft. crosscut, diamond drill holes, several hundred ft. of drifts, stopes, raises. **Improv:** 40-ton mill (1953). **Assays:** 0.52% Cd. A grab sample of sorted ore showed 17.8% Pb, 13.4% Zn, 9.5 oz. Ag. Dec. 1952 production av. 12% to 15% Pb and Zn, 10 oz. Ag. **Prod:** 1951-1955. **Ref:** 133, p. 38. 157. 158.

Lucile (82)

(see under zinc)

Lucky Boy (129)

Loc: Sec. 7, (37-40E), ¼ mi. E. of Galena Farm property. **Elev:** 4,300 ft. **Access:** 16 mi. SE. of Northport by road. **Prop:** 5 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver, copper. **Ore min:** Galena, cuprite, azurite, malachite. **Gangue:** Quartz. **Deposit:** 3-ft. zone in limestone is sparsely mineralized. Ore fills small fracture zones parallel to the strike of the limestone. **Dev:** 40-ft. shaft, 8-ft. shaft, 38-ft. adit, open cuts. **Assays:** Ore from 8-ft. shaft said to carry silver. **Ref:** 30, p. 112. 164, pp. 244-245.

Lucky Charlie (8)

(see under copper)

Lucky Four (104)

(see under silver)

Lucky Stone (136)

Loc: NE¼ sec. 16, (37-39E), Clugston Cr. area. **Access:** ¼ mi. from road. **Prop:** 40-acre lease from the State. **Owner:** Lloyd T. Jacobson (1941). **Ore:** Lead, zinc, silver. **Deposit:** Said to be a "contact vein" 1 ft. to 4 ft. wide. **Dev:** 1,275 ft.

of adits, winzes, shafts, etc. Also several open cuts. **Assays:** Said to run 15% Pb, 12% Zn, 3 oz. Ag. **Ref:** 30, p. 81.

Lynn (156)

Loc: NW¼ sec. 7, (35-38E), on N. slope of Mingo Mtn. **Elev:** 2,900 ft. **Owner:** Earl Lynn, Colville, Wash. (1953). **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** Sparse clusters of galena and pyrite in quartz gangue in dolomite just below slate contact, in zone about 50 ft. wide. **Dev:** Open cut. **Ref:** 158.

McDonald

(see Keystone under iron)

McKinley (5)

(see under gold)

McKinley (29)

Loc: Sec. 34, (39-38E), on Crown Cr., Orient dist. **Elev:** 3,500 ft. **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** 4-ft. ledge in Rossland volcanics carries a little galena. **Dev:** 52-ft. adit. **Assays:** Selected samples reported to assay \$200 Ag. **Ref:** 164, p. 256.

McNally (18)

(see under copper)

Magma (115)

(see under zinc)

Maki (112)

Loc: S½ sec. 35, (39-41E), E. of S. end of Deep Lk., on Currant Cr. **Access:** Road. **Prop:** 160 acres of deeded land. **Owner:** Grandview Mines (1953—). Mrs. Katie Maki and George Dosser (1941-1952). **Ore:** Lead, zinc, cobalt. **Ore min:** Galena, sphalerite, pyrrhotite. **Gangue:** Calcite. **Deposit:** Erratic mineralization parallel to bedding in a zone 50 to 100 ft. thick and 600 ft. long in gray limestone adjacent to granite. **Dev:** 125 ft. of workings in 4 shafts, also a number of open cuts. **Assays:** Said to carry traces of cobalt. 7 samples showed 0.1% to 1.7% Pb, 0.1% to 5.0% Zn. **Prod:** Shipped conc. in 1921. **Ref:** 30, p. 96. 97, 1921, p. 428. 158.

Maple Leaf

(see Melrose under silver)

Margarete (1)

Loc: Sec. 14, (40-36E), Orient dist. **Access:** 1 mi. of steep trail from road. **Prop:** 1 claim. **Owner:** Abandoned (1941). **Ore:** Lead, gold, silver. **Ore min:** Galena, pyrite. **Deposit:** Mineralized fracture zone about 2 ft. wide. **Dev:** 50-ft. shaft. **Ref:** 30, p. 122.

Mayflower (188)

Loc: W. part sec. 28, (32-41E), Chewelah dist. **Prop:** 4 claims. **Owner:** Abandoned (1941). **Ore:** Lead, copper. **Ore min:** Chiefly galena, also chalcopryite, cuprite, malachite, azurite. **Deposit:** Mineralized quartz vein in calcareous argillite, the latter cut by granitic dikes. **Dev:** Main shaft, shallow shafts, open cuts, trenches. **Ref:** 30, p. 35. 164, p. 159.

Melrose (68)

(see under silver)

Mexico

(see Queen under silver)

Michigan Boy (124)

Loc: Sec. 4, (36-40E) and sec. 33, (37-40E), about 13 mi. NE. of Colville, Mill Cr. area. **Prop:** 5 unpatented claims. **Owner:** Leo, Vaughn, Leon, Edna, and C. H. Sanders, and L. L. Perry, Northport, Wash. (1949-1952). **Ore:** Lead, zinc, silver. **Ore min:** Sphalerite, galena. **Deposit:** Spotty distribution of sulfides replacing limestone in fault zone. Exposed length of

65 ft., width of 1 to 3 ft., and depth of 35 ft. **Dev:** 40-ft. inclined shaft, 200-ft. crosscut and drift, trenches. **Ref:** 133, p. 37. 157.

Middleport (121)

(see under zinc)

Mineral Belt (47)

Loc: Sec. 35, (40-39E), Northport dist. **Elev:** 2,450 ft. **Prop:** Several claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver. **Ore min:** Galena. **Gangue:** Quartz. **Deposit:** A little galena occurs in a 2- to 6-in. mineralized zone parallel to the lamination of argillite. Lamprophyre forms the footwall. **Dev:** 240-ft. adit, shaft. **Ref:** 30, p. 113. 164, p. 313.

Mineral Hill

(see Aichan Bee under silver)

Monarch (140)

Loc: Secs. 3 and 10, (37-39E), 12 mi. N. of Colville. **Ore:** Lead. **Ref:** 158.

Monday Morning (117)

(see also Morning under silver)

Note: Probably this is the same as the Morning property. **Loc:** Sec. 4, (37-41E), near head of Deep Cr. **Elev:** 2,900 ft. **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** Quartz vein from 2 in. to 4 ft. wide along bedding planes of schist. Galena occurs in both the quartz and schist. **Dev:** Open cuts, 72-ft. adit. **Ref:** 58, p. 45. 164, pp. 176-177.

Montana and Washington (7)

(see under copper)

Montgomery (187)

(see under copper)

Monumental

(see Treadwell)

Moonlite

(see Morning under silver)

Moonshine-Johnny Boy (209)

(see under silver)

Morning (116)

(see under silver)

Mountain View (48)

(see under silver)

Mountain View Extension (49)

(see under silver)

Mullen (185)

Loc: W½NW¼ sec. 16, (32-41E), 3 mi. E. of Chewelah. **Elev:** 2,900 ft. **Access:** Road. **Prop:** State lease. **Owner:** Elmer J. Mullen, Chewelah, Wash. (1952). **Ore:** Lead, silver, zinc, antimony, gold, copper. **Ore min:** Pyrite, sphalerite, tetrahedrite, zinkenite, meneghinite, galena, chalcopryrite, malachite. **Deposit:** Mineralized quartz vein 3 to 4 ft. wide and traceable for 150 ft. on the surface occurs along the contact of granodiorite and quartzite. Mineralized portion of the vein is 1½ to 2 ft. wide. **Dev:** 17-ft. shaft. **Assays:** A sample of high-grade showed 33.8% Pb, 21.6 oz. Ag, 0.56 oz. Au, 9.7% Zn, 1.0% Cu, 5.6% Sb, 0.14% As. **Ref:** 132, pp. 142-143. 133, p. 37.

Myeerah (71)

Loc: E. center sec. 11, (40-42E), across the gulch W. of Frisco Standard mine. **Access:** Road. **Prop:** 4 unpatented claims. **Owner:** Jury Robinson, Northport, Wash., lessee (1949). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, tetrahedrite. **Deposit:** Vein 2 ft. wide consisting of quartz and sheared slate, cuts black slate. Numerous lamprophyre dikes. Vein traceable

for about 1,000 ft. **Dev:** 475 ft. of adits, numerous open cuts. **Assays:** Shipments returned 27% Pb, 13 oz. Ag. **Prod:** 1926. **Ref:** 30, p. 98. 68, p. 14. 97, 1926, p. 470. 128, p. 62. 158.

Myrtle

Loc: Bossburg dist. **Ore:** Lead, silver, gold. **Ref:** 13, p. 127.

Nabob

(see Fred B.)

Neglected (135)

Loc: Secs. 10 and 11, (37-39E), on high spur between 2 branches of Clugston Cr. **Access:** ½ mi. from road. **Prop:** 4 claims: Pine Tree, Maty, New Discovery, Neglected No. 1. **Owner:** Joe Day (1941). **Ore:** Lead, zinc. **Deposit:** Country rock of argillite and limestone is cut by a mineralized quartz-calcite vein about 8 ft. wide. **Dev:** 150-ft. adit, 100-ft. shaft, 25-ft. shaft, several open cuts, shafts, and short adits. **Prod:** 1917, 1925, 1928. **Ref:** 30, p. 83. 97, 1917, 1925, 1928. 164, p. 241.

Nevada (168)

Loc: SW¼ sec. 23, (32-39E), Chewelah dist. **Elev:** 3,400 ft. **Access:** 5 mi. by road and 1 mi. by trail SW. of Blue Cr. **Prop:** 40 acres of deeded land. **Owner:** Nevada Syndicate Mining Co., Chewelah, Wash. **Ore:** Lead, zinc, silver, copper. **Ore min:** Galena, sphalerite, tetrahedrite, chalcopryrite, pyrite. **Gangue:** Quartz, actinolite, epidote. **Deposit:** Ore minerals form pockets replacing limestone. The pockets range from a few inches to a foot or more in dia. **Dev:** 30-ft. shaft and 2 other shallow shafts. **Assays:** Ore reported to carry Ag. **Prod:** Carload of ore hauled to siding in 1903. **Ref:** 7, p. 111. 30, p. 37. 46, pp. 97-98. 97, 1925, p. 562. 100, 1903, pp. 83-84. 164, pp. 169-170.

New England (63)

(see under zinc)

New Leadville (Yo Tambien) (141)

Loc: SE¼ sec. 3, (37-39E), Bossburg dist. **Elev:** 3,000 to 3,800 ft. **Access:** 12 mi. by road from railroad at Colville. **Prop:** 10 claims: Bye-Joe, Una, Monarch, Blue Bell, Surprise, Aspen, Botts, Tamarack, R. J. **Owner:** Sunrise Mining Co. (1941). New Leadville Mines Co. (1924-1927). Eureka Surprise Mining Co. (1928). **Ore:** Lead. **Ore min:** Galena, cerussite, wulfenite, limonite. **Gangue:** Calcite, siderite, quartz. **Deposit:** Ore minerals occur in a brecciated zone in dolomitic limestone. The ore body is irregular and buncy. Much of it has been stoped. **Prod:** Produced prior to 1924. **Ref:** 46, pp. 73-75. 73, pp. 115-116.

Newland

(see Longshot)

Newport (Eagle-Newport)

(see Aguila)

Niles (183)

Loc: Sec. 8, (32-41E), Chewelah dist. **Owner:** O. C. Niles, Chewelah, Wash. **Ore:** Lead, silver. **Ref:** 158.

Noble Four

(see under copper)

Norman King

Loc: Colville dist. **Ore:** Lead, silver. **Prod:** 1908. **Ref:** 97, 1908, p. 580.

North Monitor (197)

(see under silver)

Northern Light (50)

Loc: NE¼SE¼ sec. 5 and NW¼SW¼ sec. 4, (39-40E), adjoining Silver Crown property on the N., on the outskirts

of Northport. **Access:** Within 500 ft. of railroad. **Prop:** 1 patented claim: Northern Light. **Owner:** Mrs. W. H. Smiley, Spokane, Wash. (1944). Silver Crown Mining Co. (1890). **Ore:** Lead, silver, zinc. **Ore min:** Cerussite, lead oxide, sphalerite, smithsonite. **Deposit:** In sight is 3,000 tons of ore which is similar in character to that of Silver Crown mine. **Dev:** 70-ft. adit, 40-ft. shaft. **Ref:** 12, p. 74. 13, p. 120. 158.

Northport

(see Deep Creek under zinc)

Norway King

Loc: Colville dist. **Ore:** Lead, silver. **Prod:** 1908-1909. **Ref:** 97, 1908, p. 580.

Oakshott (118)

Loc: Sec. 4, (37-41E), Northport dist. **Access:** Road. **Prop:** 167 acres of deeded land. **Owner:** Tom and George Oakshott, Colville, Wash. (1941). **Ore:** Lead, silver, zinc. **Deposit:** Quartz veins. **Ref:** 30, p. 106.

Occidental (64)

(see under zinc)

Old Dominion (153)

(see under silver)

Olympia (78)

Loc: Sec. 25, (40-42E), on S. slope of Red Top Mtn., Northport dist. **Elev:** 3,275 ft. **Access:** 5 mi. by road from railroad at Boundary. **Prop:** 1 claim: Olympia. **Ore:** Lead, zinc. **Ore min:** Galena, cerussite, sphalerite, pyrite. **Gangue:** Limonite. **Deposit:** Chimney of ore at intersection of 2 steeply dipping fracture zones in limestone. Also some ore in a 3-ft. quartz vein. **Dev:** 177-ft. adit with a raise and 2 winzes. **Ref:** 164, pp. 302-303.

O'Neal

(see Rightside under copper)

Onion Creek

Loc: Bossburg dist. **Ore:** Lead. **Prod:** 1925. **Ref:** 97, 1925, p. 560.

Orazada (215)

(see under silver)

Orchid (196)

(see under silver)

Ore Cache (Oro Cache) (154)

Loc: Sec. 9, (35-40E), ½ mi. S. of Old Dominion mine. **Elev:** 2,800 to 2,990 ft. **Access:** Road near the property. **Prop:** Several claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver. **Ore min:** Galena. **Gangue:** Quartz. **Deposit:** Galena has replaced some of the fractures in limestone and is especially abundant at fracture intersections. Also a quartz vein on the property. **Dev:** 55-ft. adit, 83-ft. crosscut, 85-ft. adit, 40-ft. shaft, several open cuts and other short adits. **Prod:** 1916. **Ref:** 30, p. 52. 97, 1916, p. 615. 164, pp. 173-174.

Orient-Eureka

(see Eureka under gold)

Oro Cache

(see Ore Cache)

Owen

(see Lucile under zinc)

Paragon

(see Melrose under silver)

Perry (2)

Loc: Center E½ sec. 23, (40-36E), near top of cliff on E. side of Kettle R. **Elev:** 2,300 ft. **Access:** ½ mi. by trail E. of

road on E. side of Kettle R. **Owner:** Abandoned (1941). George Perry (1932). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, pyrite, sphalerite. **Deposit:** Narrow quartz vein and some of the adjacent country rock mineralized primarily by galena. **Dev:** 500 ft. of drifts and crosscuts in 3 adits, several open cuts. **Assays:** Ore reportedly carries silver and gold. **Ref:** 30, p. 120. 158.

Pioneer

(see Longshot)

Plata Fino (210)

(see under silver)

Plata Rica (211)

(see under silver)

Plug (109)

(see under zinc)

Pomeroy (21)

(see under zinc)

Prosperity (85)

Loc: Secs. 29 and 30, (40-42E), Northport dist. **Access:** 8 mi. by road from railroad at Boundary. **Ore:** Lead. **Ref:** 158.

Providence (204)

(see under silver)

Providence (45)

Loc: Sec. 34, (40-39E), 4 mi. SW. of Northport. **Elev:** 4,000 ft. **Prop:** Several unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver, copper, zinc. **Ore min:** Pyrite, galena, tetrahedrite, sphalerite, chalcopryrite. **Deposit:** Argillite cut by acidic dikes. 2 quartz veins contained in acidic dikes are exposed. One vein is 12 in. wide. Also a mineralized dike 8 ft. wide. **Dev:** 100-ft. inclined shaft, 192-ft. adit, 2 other shafts. **Ref:** 30, p. 113. 164, pp. 314-315.

Queen (208)

(see under silver)

Queen and Seal

(see Queen under silver)

R. J. (143)

(see also Uncle Sam)

Loc: Sec. 3, (37-39E), about 400 ft. S. of Uncle Sam property, Northport dist. **Prop:** Now part of Uncle Sam group. **Ore:** Lead, silver. **Ore min:** Galena, cerussite. **Gangue:** Quartz, siderite. **Deposit:** 10-ft. breccia zone in limestone has been cemented by ore and gangue minerals. **Dev:** Several open cuts, shallow shafts, and short adits. **Assays:** Said to carry Ag. **Prod:** 2 carloads of ore. **Ref:** 30, p. 84. 164, pp. 242-243.

Rainbow

(see under silver)

Ranch View (79)

Loc: NE¼ sec. 19, (40-42E), on E. side of Red Top Mtn., Northport dist. **Access:** ½ mi. from road. **Prop:** 2 unpatented claims. **Owner:** A. D. Terry, Boundary, Wash. (1941). **Ore:** Lead, zinc, silver. **Deposit:** Vein in argillite and limestone from 6 in. to 2 ft. in width. **Dev:** 30-ft. shaft and 2 adits comprising 210 ft. of work. **Ref:** 30, p. 98.

Red Cloud (201)

(see under copper)

Red Iron (95)

Loc: Sec. 8, (39-42E), on W. side of Black Cat property, Northport dist. **Elev:** 3,800 ft. **Access:** 1 mi. from road. **Prop:** 4 claims: Red Dick, Tamarack, Red Iron Nos. 1 and 2. **Owner:** Abandoned (1941). **Ore:** Lead. **Ore min:** Galena, cerussite,

limonite. **Gangue:** Clay, altered limestone, quartz, siderite. **Deposit:** Chimneys of lead ore along fracture intersections in limestone. **Dev:** 80-ft. shaft, 20-ft. shaft, open cuts. **Assays:** Ore from a 50-ft. shaft on Red Iron No. 1 claim said to assay 7% Pb. **Ref:** 30, p. 99. 73, pp. 96-97. 164, pp. 308-309.

Red Top (90)

(see also Anaconda, Copper King)

Loc: NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, (40-41E), Northport dist. **Elev:** 3,100 ft. **Access:** 16 mi. by road from railroad at Northport. 1½ mi. of good truck road connects the property with the Leadpoint-Northport road 4 mi. from Leadpoint. **Prop:** 5 patented and 3 unpatented claims, including the Anaconda. **Owner:** Pacific Northwest Mining Co., Bremerton, Wash. (1952-1954). Red Top Mining Co., Spokane, Wash. (1924-1952). **Ore:** Lead, zinc, silver, tungsten. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite, scheelite. **Gangue:** Quartz. **Deposit:** Mineralized shear zones in marble and argillite crisscrossed by quartz veins. Some ore shoots as much as 4 ft. wide and 18 ft. long. **Dev:** 2,700-ft. adit; some 1,500 ft. of drifts, raises, and winzes have been opened off the adit. **Improv:** Several buildings in good condition. **Assays:** High-grade sample showed 36% Pb, 18% Zn, 16 oz. Ag. One zone carried 2% to 4% scheelite. **Prod:** Small shipments of lead-silver-zinc ore 1938, 1944, 1953. 4 shipments prior to 1939 totaled about 200 tons of ore. **Ref:** 30, pp. 89, 100-101. 37, pp. 59-61. 46, pp. 69-70. 97, 1928, p. 703; 1939, p. 491; 1945. 98, 1922, p. 1663; 1925, p. 1829. 104, 8/15/32, p. 29. 106, 8/4/32; 9/7/33. 150, p. 38. 158.

Redwood (181)

(see under silver)

Rightside (152)

(see under copper)

Rinchaw

(see Middleport under zinc)

Riverview (43)

Loc: SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, (40-40E), Northport dist. **Owner:** John A. Peterson and William Parrott, lessees, Colville, Wash. (1952). **Ore:** Lead, zinc, silver. **Ref:** 133, p. 38.

Robena

(see Young America under zinc)

Rockcut (3)

Loc: Secs. 23 and 26, (40-36E), Orient dist. **Access:** Road. **Prop:** Several unpatented claims. **Owner:** W. S. Bliss, Orient, Wash. (1941). **Ore:** Lead, silver, zinc. **Deposit:** Quartz vein which varies from a few in. to 5 ft. in width. Said to be 5,000 tons of ore blocked out. **Dev:** 700 ft. of shaft with some drifting. **Assays:** Ore blocked out said to run \$6 to \$22 per ton. **Ref:** 30, p. 135.

Rocky Creek

(see Burrus under zinc)

Roosevelt (69)

(see under silver)

Rosebud (164)

Loc: Sec. 22, (34-37E), Summit dist. **Access:** Near road. **Prop:** 3 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, silver. **Deposit:** Small stringers of quartz 1 in. and less in width. **Dev:** Small shaft and surface cuts, caved (1941). **Ref:** 30, p. 65.

Royal

(see Big Chief)

Royal Gold

(see Hubbard)

S. L.

(see under tungsten)

St. Crispin (41)

(see under gold)

Sandiego (199)

(see under silver)

Santa Rita

(see Cleveland)

Saratoga

(see under gold)

Saturday Night-Sunday Morning (212)

Loc: Sec. 11, (29-37E), Deer Trail dist. **Elev:** 3,600 ft. **Access:** Poor road. **Prop:** 2 claims. **Owner:** Mr. Stiles, Fruitland, Wash. (1941). Plata Fino Mining Co. (1918-1920). **Ore:** Lead, silver, zinc, copper. **Ore min:** Galena, sphalerite, tetrahedrite, malachite, limonite. **Gangue:** Quartz, barite. **Deposit:** Ore minerals occur in small patches along fracture zones in limestone and argillite. Main vein is about 18 in. wide. **Dev:** About 800 ft. of workings in several adits and shafts, mostly caved. **Assays:** 2 tons from 50-ft. level from shaft shipped prior to 1897 returned 71 oz. Ag at smelter. **Prod:** Small amount. **Ref:** 7, p. 116. 30, p. 73. 63, p. 115. 112, p. 197. 164, pp. 191-192.

Sauvola

(see Blue Lime)

Scaman (83)

Loc: Sec. 19, (40-42E), on Red Top Mtn., Northport dist. **Elev:** 2,850 to 2,925 ft. **Access:** 6 mi. by road to railroad at Boundary. **Prop:** 4 claims and 1 fraction. **Owner:** Fred Scaman & Bros., Wenatchee, Wash. (1920). **Ore:** Lead. **Ore min:** Galena, cerussite. **Deposit:** Ore found as pockets in limestone near a dike. Width of ore zone about 3 ft. **Dev:** 340-ft. adit, 240-ft. adit with some drifting. **Prod:** 65 tons from upper adit prior to 1920. **Ref:** 7, p. 57. 164, pp. 297-298.

Scandia (56)

(see under zinc)

Schenk

(see Rightside under copper)

Seal

(see Queen under silver)

Shoemaker (123)

(see under zinc)

Short Wait (54)

Loc: Sec. 17, (39-39E), on W. side of Columbia R. **Access:** 1 mi. from highway. **Prop:** 5 unpatented claims. **Owner:** George McGowan, Northport, Wash. (1941). **Ore:** Lead, zinc, silver, gold, copper, molybdenum. **Deposit:** Small pockets of ore along a fracture zone. **Dev:** 20-ft. shaft, 18-ft. adit. **Ref:** 30, pp. 94-95. 158.

Sierra Zinc (114)

(see under zinc)

Silver Basin

(see Queen under silver)

Silver Crest

(see under silver)

Silver Crown (51)

Loc: NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5 and NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, (39-40E), on outskirts of town of Northport. **Elev:** Workings at 2,100 to 2,300 ft. **Access:** Within 500 ft. of railroad. **Prop:** 1 patented claim: Silver Crown. **Owner:** Mrs. W. H. Smiley, Spokane,

Wash. (1944). Hughes estate (1941). **Ore:** Lead, silver, zinc. **Ore min:** Cerussite, lead oxide, sphalerite, smithsonite. **Deposit:** Ore is in quartz fissure veins along faults in limestone. The veins are less than 2 ft. wide and generally are only 2 or 3 in. They are mineralized for a few yd. laterally and vertically, as exposed on the surface and in shafts. **Dev:** 60-ft. shaft, 130-ft. adit with 73 ft. of crosscuts, 100-ft. adit. **Assays:** Best showing 2 to 5 ft. wide and 100 ft. long est. to contain 1% to 2% Pb, 2% to 3% Zn. **Prod:** Reportedly 2 cars of ore shipped. **Ref:** 12, p. 74. 13, p. 120. 30, p. 104. 97, 1925, p. 561; 1926, p. 470. 100, vol. 10, 1902, p. 49. 158.

Silver Key

(see Big Chief)

Silver King

Loc: 4½ mi. SE. of Northport. **Prop:** 4 claims. **Owner:** Silver King Mining Co. (1902). **Ore:** Lead, silver. **Deposit:** Several veins of lead-silver ore. **Dev:** 3 shafts, 30 ft., 28 ft., and 20 ft. in depth. **Assays:** Some assays of solid ore yielded 77% Pb, 6 oz. Ag. **Ref:** 88, p. 6.

Silver Mountain

(see Daisy-Tempest under silver)

Silver Queen (Ark)

(see Ark under silver)

Silver Queen (Queen)

(see Queen under silver)

Silver Seal

(see Queen under silver)

Silver Summit (Summit) (167)

Loc: Near center sec. 33, (33-38E), Chewelah dist. **Access:** Road. **Prop:** 2 patented claims. **Owner:** Mrs. A. J. Moore, Seattle, Wash. (1941). Silver Summit Mining Co. (1923-1926). **Ore:** Lead, silver, copper. **Ore min:** Galena, anglesite. **Gangue:** Quartz. **Deposit:** 3-ft. vein cutting trachite. **Dev:** 2 shafts, one a 300-ft. incline from which 300-ft. and 40-ft. drifts have been driven. **Assays:** 20% to 41.30% Pb, 15 to 63 oz. Ag. **Prod:** Some rich silver ore packed out in the 1880's. **Ref:** 12, p. 26. 30, pp. 38-39. 63, p. 113. 97, 1923, p. 414. 98, 1925, p. 1832; 1926, p. 1595. 117, no. 1, 1922, p. 41. 141, p. 22.

Silver Trail (Clugston, Dead Medicine) (146)

Loc: N. part sec. 33, (38-39E), near head of E. branch of Bruce Cr. **Elev:** 3,025 ft. **Access:** 8 mi. by road to railroad at Bossburg. **Prop:** 2 patented and 4 unpatented claims. **Owner:** Silver Trail Mining Co. (1912-1952). Leased by Robert Ramser, Spokane, and A. B. Sylvester, Evans, Wash. (1951-1952). John Keough (1887-1889). I. N. Peyton (1889). **Ore:** Lead, silver, zinc, cadmium. **Ore min:** Galena, sphalerite, chalcopryrite. **Deposit:** Quartz vein 1½ to 8 ft. wide in argillite and quartzite is parallel to and within 600 ft. of granite contact. **Dev:** 850-ft. lower adit, 320-ft. upper adit from which the ore was shipped. Total about 2,000 ft. **Improv:** Bunkers (1952). **Assays:** 5,000 tons of ore av. 7 oz. Ag, 1½% Pb. A carload assayed 54.5 oz. Ag, 14.1% Pb, 9.5% Zn, 16% S, 11% Fe, 1.7% CaO, no Au. **Prod:** \$122,000 prior to 1928. 1938, 1939, 1941, 1950, 1951. **Ref:** 12, p. 82. 13, pp. 127-128. 30, p. 84. 46, pp. 57-59. 97, 1912, 1925, 1939, 1940. 98, 1918-1926. 104, 4/15/28, p. 56; 2/15/34, p. 20; 6/15/35, p. 27. 106, 5/1/30, p. 20. 108, 4/15/52, p. 85. 112, p. 203. 133, p. 39. 164, pp. 246-248.

Silver Wave

Loc: Bossburg dist. **Ore:** Lead, silver. **Ref:** 13, p. 127.

Smoky Bullion

(see A and C under copper)

Snyder and Baxter

(see under silver)

Squire

Loc: Summit dist., 18 mi. W. of Chewelah. **Access:** Road from Chewelah. **Prop:** 4 claims, including the Summit and Blanche. **Owner:** J. N. Squire (1890). **Ore:** Lead, silver, copper. **Ore min:** Galena, anglesite, chalcocite. **Gangue:** Quartz. **Deposit:** 2 veins, one 3 ft. wide carries lead and silver, another 2 ft. wide carries copper and silver. **Dev:** 300-ft. shaft, 50-ft. incline. **Assays:** High-grade from Summit claim assayed 50 oz. Ag, 45% Pb. Lesser grade assayed 15 oz. Ag, 20% Pb. Ore from Blanche claim assayed 100 to 400 oz. Ag, 8% to 10% Cu. **Ref:** 12, pp. 76-77. 13, pp. 122-123.

Star

(see Just Time)

Steel Galena

(see Ham)

Stemwinder (11)

(see under copper)

Sterrett (44)

Loc: Sec. 33, (40-40E), Northport dist. **Access:** Near road. **Prop:** 10 acres of deeded land. **Owner:** Ray Evans, Northport, Wash. (1941). **Ore:** Lead, silver, zinc, gold. **Deposit:** Vein which varies in width from nothing to 3 ft. **Dev:** 500 ft. of work in drifts, raises, and stopes. **Assays:** 5,870-lb. shipment assayed 56.2% Pb, 3% Zn, 34.2 oz. Ag, 0.013 oz. Au. **Prod:** 5,870 lb. shipped prior to 1941. **Ref:** 30, p. 100.

Stone

(see New England under zinc)

Stonewall-Sunnyside (55)

Loc: Secs. 16 and 22, (39-40E), Northport dist. **Access:** 1 mi. by trail from road. **Prop:** 3 unpatented claims. **Owner:** Henry Evjin, Northport, Wash. (1941). **Ore:** Lead, zinc, silver. **Deposit:** Vein said to av. 3 ft. in width occurs along the contact of granite and argillite. **Dev:** 75-ft. shaft and 300-ft. crosscut. **Ref:** 30, p. 95.

W. B. Stuart

(see John Day under silver)

Sugar Loaf

(see Vanasse under silver)

Summit

(see Silver Summit)

Sunday Morning

(see Saturday Night-Sunday Morning)

Sunnyside

(see Stonewall-Sunnyside)

Sunset (42)

Loc: SW¼ sec. 30, (40-40E), ½ mi. N. of Northport, 300 ft. W. of Columbia R. **Elev:** 1,350 ft. **Prop:** 20 acres of deeded land. **Owner:** Mr. Gourley and associates, Wenatchee, Wash. (1941). **Ore:** Lead, silver, gold, zinc, copper. **Ore min:** Galena, sphalerite, pyrite, tetrahedrite, chalcopryrite, much pyrrhotite. **Gangue:** Quartz. **Deposit:** Mineralization along contact of kersantite dikes with limestone and shale. Vein varies from a few inches to several feet in width. **Dev:** 400-ft. inclined shaft from which short drifts were driven at 100-ft. intervals. **Assays:** \$2.00 to \$62.00 Au, 3.0 to 38.9 oz. Ag, 9.0% to 75.0% Pb. **Ref:** 7, pp. 59-60. 116, no. 2, 1908, pp. 37-38. 164, p. 316.

Superior Copper (169)

(see under copper)

Surprise

(see Uncle Sam)

Tempest

(see Daisy-Tempest under silver)

Tenderfoot (Avondale-Dome)

(see Avondale-Dome)

Tenderfoot (Big Chief)

(see Big Chief)

Three Orphans (9)

Loc: Sec. 26, (40-36E), Orient dist. **Elev:** 2,190 ft. **Access:** Near road. **Prop:** 1 claim. **Owner:** Adrian Gold Mining & Milling Co. (1920-1941). **Ore:** Lead, gold, silver. **Ore min:** Galena. **Deposit:** 4- to 10-in. vein of quartz cutting Orient gneiss contains a small amount of galena. Another vein of white crystalline quartz also occurs on the claim. **Dev:** 240-ft. adit. **Assays:** Reported to carry Au. **Ref:** 30, p. 119. 164, p. 288.

Togo (200)

(see under copper)

Tom Moore (12)

Loc: W½ sec. 30, (40-37E), Orient dist. **Access:** Just N. of the road on a flat. **Prop:** 1 unpatented claim. **Owner:** Abandoned (1941). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** A 1-ft. quartz vein carrying considerable galena. **Dev:** A series of shallow open cuts, one 15 ft. long and 8 ft. deep. **Ref:** 30, p. 119. 164, pp. 284-285.

Treadwell (Iron Mask)

(see Iron Mask under zinc)

Treadwell (Monumental) (92)

Loc: Sec. 12, (39-41E). **Elev:** 3,500 ft. **Access:** 17 mi. by road from railroad at Northport. **Prop:** Several claims. **Owner:** Monumental Lead Co. (1914). **Ore:** Lead. **Ore min:** Galena, pyrite. **Gangue:** Limestone, dolomite. **Deposit:** Ore occurs as pockets or bunches in limestone and dolomite. Resembles Metaline occurrences. **Dev:** Several open cuts and short adits. **Prod:** No large shipments. **Ref:** 7, p. 56.

Trojan (23)

(see under gold)

Tungsten King (190)

(see under tungsten)

Turquoise

Loc: Northport dist. **Ore:** Lead. **Prod:** 1918. **Ref:** 97, 1918, p. 510.

Uncle Sam (27)

(see under copper)

Uncle Sam (Hi Cliff, Eureka, Surprise) (144)

Loc: Sec. 3, (37-39E), near head of Clugston Cr., Northport dist. **Elev:** 3,000 to 3,125 ft. **Access:** 12 mi. by road from railroad at Colville. **Prop:** 2 unpatented claims. **Owner:** Ray and Roy Johnson leasing (1948) from J. D. McDonald, Evans, Wash. (1941-1948). New Leadville Co. (1924). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite, smithsonite, cerussite. **Gangue:** Quartz, dolomite. **Deposit:** Ore occurred as a chimney in highly brecciated dolomite. Chimney 185 ft. long and 4½ to 8 ft. in dia. Similar to Gladstone. **Dev:** 3 adits comprise 1,400 ft. One at least 400 ft. long. Upper one 65 ft. long with winze at face said to intersect lower adit. Considerable stoping from upper adit. **Improv:** One building in poor repair. **Assays:** One sample across 3.5-ft. width showed 0.34 oz. Ag, 7.2% Pb, 6.4% Zn. **Prod:** Considerable tonnage of lead ore produced prior to 1924. Produced 1948-1949. **Ref:** 30, p. 80. 46, pp.

73-74. 68, p. 7. 73, pp. 116-117. 97, 1926, p. 469. 98, 1926, pp. 1588, 1598. 106, 9/17/31, p. 14. 157. 158. 164, pp. 243-244.

United Treasure (70)

(see under silver)

Van Stone (127)

(see under zinc)

Vanasse (150)

(see under silver)

Venus

(see Deer Trail under silver)

Victory

(see Vanasse under silver)

Viking (16)

(see under copper)

Washington

(see Montana and Washington under copper)

Washington Black Rock

(see Black Rock under zinc)

Wellington

Loc: 4 mi. S. of Daisy mine, Summit dist. **Prop:** 1 claim. **Owner:** W. H. Kearney (1892). **Ore:** Lead, silver. **Ore min:** Cerussite, siderite. **Deposit:** 2½-ft. vein. **Dev:** 30-ft. shaft, crosscut. **Assays:** 75 oz. Ag, 20% Pb. **Ref:** 12, p. 78. 13, p. 124.

Wells Fargo (194)

(see under antimony)

White Horse (35)

(see under copper)

Wildcat (Boucher) (105)

Loc: Near center sec. 18, (39-42E), Northport dist. **Elev:** 3,900 to 4,500 ft. **Access:** 4 mi. by road from Leadpoint. **Prop:** 2 claims and 1 fraction. **Owner:** Heirs to the estate of B. A. Boucher (1949). **Ore:** Lead. **Deposit:** 2 gossan outcrops like those on chimneys of lead ore mined at Gladstone and Electric Point mines. **Dev:** Trenching by U. S. Bureau of Mines, 100 ft. of old shafts. **Ref:** 25, p. 6. 30, p. 105.

Wilkie Lode (175)

Loc: Sec. 33, (33-41E), Chewelah dist. **Access:** 1 mi. from road. **Prop:** 1 unpatented claim. **Owner:** Messrs. Dobson and Schmeller, Colville, Wash. (1941). **Ore:** Lead, silver, copper. **Deposit:** Quartz vein about 4 ft. wide. **Dev:** Open cuts. **Assays:** One assay showed 15% Pb. **Ref:** 30, p. 36.

Windfall (186)

(see under copper)

Winslow (174)

Loc: Sec. 26, (33-41E), Chewelah dist. **Elev:** 3,900 ft. **Access:** Road. **Prop:** 3 claims. **Owner:** John Harritt, Spokane, Wash. (1941). Silver Queen Mining Co. (1920). **Ore:** Lead, copper, zinc, gold, silver. **Ore min:** Galena, chalcopryrite, pyrite, sphalerite. **Gangue:** Quartz, calcite. **Deposit:** Quartzite with interbedded slate and chert is cut by a vein consisting of quartz and breccia. **Dev:** 230-ft. crosscut, 80-ft. shaft, 30-ft. shaft. **Assays:** \$8.00 Au reported. **Ref:** 30, p. 35. 164, p. 158.

Woohaa

(see Bechtol)

Yo Tambien

(see New Leadville)

Young (110)

Loc: NW¼NW¼ sec. 34, (39-41E). **Elev:** 2,150 to 2,250 ft. **Owner:** Goldfield Consolidated Mining Co., lessee (1949). A. W.

Young and Walter Johnson, Northport, Wash. (1945). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite. **Deposit:** Disseminated sulfides in limestone at and near its contact with granite. **Dev:** 5 open pits. **Ref:** 68, p. 10. 157.

Young America (147)
(see under zinc)

WHATCOM COUNTY

Allen Basin (6)
(see under gold)

Azurite (12)
(see under gold)

Baltimore Mines, Inc. (7)
(see under gold)

Chancellor (8)
(see under gold)

Evergreen (4)
(see under gold)

Galena
(see Verona under gold)

Gargett (2)
(see under gold)

Gold Hill (9)
(see under silver)

Golden Arrow
(see Tacoma under gold)

Great Excelsior (1)
(see under gold)

Indiana
(see Chancellor under gold)

Lincoln
(see Great Excelsior under gold)

Mammoth (10)
(see under gold)

Northern Cascade
(see Gold Hill under silver)

Peterson
(see Gold Hill under silver)

President
(see Great Excelsior under gold)

Saginaw (3)
(see under gold)

Tacoma (11)
(see under gold)

Verona (5)
(see under gold)

Willow Lake
Loc: On upper Skagit R. **Prop:** 1 unpatented claim. **Owner:** Alfred Standberg, Seattle, Wash. (1952). **Ore:** Lead. **Ref:** 158.

YAKIMA COUNTY

Chinook (3)
(see under copper)

Elizabeth Gold Hill (2)
(see under gold)

Gold Hill (1)
(see under gold)

Keystone (5)
(see under copper)

Richmond (4)
Loc: NE¼ sec. 32, (16-13E), on Martha Cr. near headwaters of N. Fk. of Rattlesnake Cr. **Elev:** 4,600 ft. **Access:** 3 mi. by trail from Clover Spring. **Prop:** 26 unpatented claims. **Owner:** George V. Rankin, Frank Hardy, William Eamon, and Lin B. Bissell, Yakima, Wash. (1946). **Ore:** Lead, silver, zinc, copper, gold. **Ore min:** Galena, tetrahedrite, sphalerite, pyrite, malachite, azurite, arsenopyrite, bornite, chalcopyrite. **Gangue:** Siderite, calcite, quartz. **Deposit:** A 2-ft. shear zone in andesite. Brecciated rock has been cemented by calcite and ore minerals. Ore minerals occur in small local shoots. **Dev:** 3 adits, one 50 ft., another 10 ft. long, and a longer one caved. Also a shaft and an open cut. **Improv:** Cabin (1946). **Assays:** 5 assays on picked samples show 22.5 to 248.0 oz. Ag, 0.02% to 5.02% Pb, 0.08% to 1.08% Zn, 0.02% to 1.87% Cu. **Ref:** 58, p. 58. 158.

LITHIUM

Properties—Lithium is the lightest element which is solid at ordinary temperatures, and only the gases hydrogen and helium have lower atomic weights. It is less than one-third as heavy as aluminum and half as heavy as water. It is silver white and has a brilliant luster on fresh surfaces but slowly tarnishes when exposed to air. It is ductile, readily extrudable, and soft ($H=0.6$), being harder than sodium and potassium but softer than lead and softer than talc. Chemically, it is similar to the other alkali metals, sodium, potassium, rubidium, and cesium. It has a valence of 1, and forms salts analogous to those of sodium and potassium. Lithium reacts with water to form the hydride and hydrogen. Pound for pound, it is the most effective metallic reducing agent, and it is not only an efficient deoxidizer but it also has a high affinity for nitrogen, hydrogen, sulfur, phosphorus, carbon, and silicon. Other properties are shown in the table on page 12.

Uses—Lithium metal, alloys, and compounds have a wide variety of uses, although as yet only in compara-

tively small quantities. The principal use of the metal is as a scavenger for degasification and deoxidation of high-conductivity copper and other nonferrous metals. Similarly, it is used as a "getter" in vacuum tubes. The metal is used in certain organic chemical reactions, and is reported to be used in the production of tritium for the thermonuclear bomb ("hydrogen bomb") project of the United States Atomic Energy Commission. Lithium may be alloyed with aluminum, lead, copper, zinc, iron, calcium, beryllium, and magnesium; even in very minor amounts it imparts the qualities of hardness, toughness, tensile strength, ductility, and improved uniformity to its alloys. In high-pressure castings it densifies the grain in the metal and eliminates porosity. It is used to improve the qualities of certain steels and is used, as a substitute for tin, to harden bearing alloys. Lithium minerals and compounds have an even wider use than the metal and alloys, in the glass, optical, ceramic, chemical, and air-conditioning industries. Lithium chloride is one of the most efficient desiccants known. In addition, various lith-